NATIONAL PARKS PORTFOLIO

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

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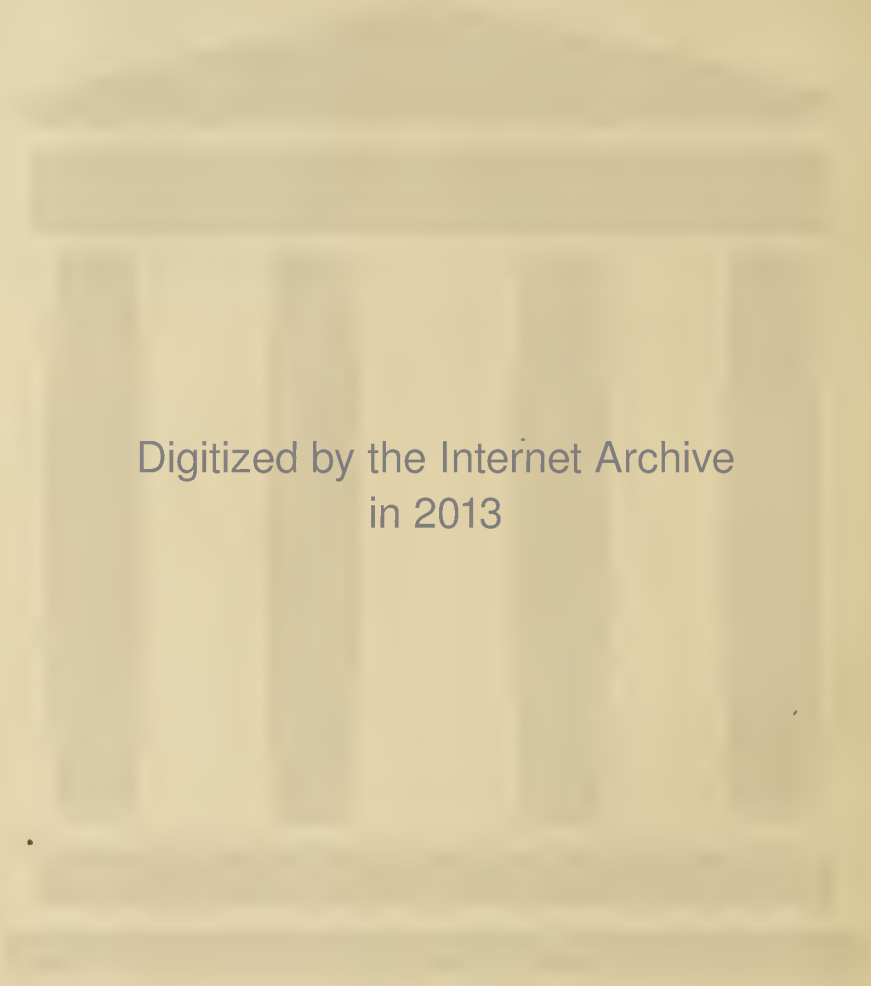

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DEPARTMENT OF THE INTERIOR
JOHN BARTON PAYNE, Secretary

NATIONAL PARK SERVICE
STEPHEN T. MATHER, Director

THE NATIONAL PARKS PORTFOLIO

BY

ROBERT STERLING YARD

GOVERNMENT PRINTING OFFICE
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1921

NOTE TO THIRD EDITION

THE first edition of the National Parks Portfolio, which numbered 275,000 copies, was issued by the Department of the Interior in June, 1916. The second edition, brought up to date by the substitution of later photographs and enlarged by the addition of thirty-six pages, was one of the first publications of the new National Park Service, which Congress created August 25, 1916. This, the third edition, contains twenty-two additional pages of pictures. It shows fifty pictures not included in former editions.

Acknowledgments are due to the many photographers, professional and amateur, who contributed some of the best examples of their work to this Portfolio; to the United States Geological Survey for assistance and hearty cooperation; to many helpful individuals; and to seventeen Western railroads, whose contribution of forty-three thousand dollars made possible its first publication.

ROBERT STERLING YARD

FOR SALE BY SUPERINTENDENT OF DOCUMENTS
GOVERNMENT PRINTING OFFICE, WASHINGTON, D. C.
BOOK BOUND IN CLOTH . . . . . ONE DOLLAR

DEPARTMENT OF THE INTERIOR
JOHN BARTON PAYNE, Secretary

NATIONAL PARK SERVICE
STEPHEN T. MATHER, Director

INTRODUCTION

TO BUILD a railroad, reclaim lands, give new impulse to enterprise, and offer new doors to ambitious capital—these are phases of the ever-widening life and activity of this Nation. The United States, however, does more; it furnishes playgrounds to the people which are, we may modestly state, without any rivals in the world. Just as the cities are seeing the wisdom and necessity of open spaces for the children, so with a very large view the Nation has been saving from its domain the rarest places of grandeur and beauty for the enjoyment of the world.

And this fact has been discovered only recently by many. Europe being closed, thousands for the first time have crossed the continent and seen one or more of the national parks. That such mountains and glaciers, lakes and canyons, forests and waterfalls were to be found in this country was a revelation to many who had heard but had not believed. It would appear from the experience of the past year that the real awakening as to the value of these parks has at last been realized, and that those who have hitherto found themselves enticed by the beauty of the Alps and the Rhine and the soft loveliness of the valleys of France may find equal if not more stimulating satisfaction in the mountains, rivers, and valleys which this Government has set apart for them and for all others.

There is no reason why this Nation should not make its public health and scenic domain as available to all its citizens as Switzerland and Italy make theirs. The aim is to open them thoroughly by road and trail and give access and accommodation to every degree of income. In this belief an effort is making now as never before to outfit the parks with new hotels and public camps which should make the visitor desire to linger rather than hasten on his journey. One large hotel has been projected in the Valley of the Yosemite; a fine new hotel stands on Glacier Point, while more modest lodges have been dotted about in the obscurer spots to make accessible the rarer beauties of the inner Yosemite. For, with the new Tioga Road, which, through the generosity of Mr. Stephen T. Mather and a few others, the Government has acquired, there is to be revealed a new Yosemite which only John Muir and others of similar bent have seen. This is a Yosemite far different from the quiet, incomparable valley. It is a land of forests, snow, and glaciers. From

Mount Lyell one looks, as from an island, upon a tumbled sea of snowy peaks. Its lakes, many of which have never been fished, are alive with trout. And through it foams the Tuolumne River, a water spectacle destined to world celebrity.

A new hotel, accompanied by adequate camping facilities, has been built on a shoulder of Mount Rainier, in Paradise Valley; and roads are projected to open up the northern side of this wonderful ice mountain. New roads and trails are building in the Glacier National Park, and new hotels are projected to make accessible portions of this scenic wilderness of incomparable magnificence.

While as the years have passed we have been modestly developing the superb scenic possibilities of the Yellowstone, nature has made of it the largest and most populous game preserve in the Western Hemisphere. Its great size, its altitude, its vast wildernesses, its plentiful waters, its favorable conformation of rugged mountain and sheltered valley, and the nearly perfect protection afforded by the policy and the scientific care of the Government have made this park, since its inauguration in 1872, the natural and inevitable center of game conservation for this Nation. There is something of significance in this. It is the destiny of the national parks, if wisely controlled, to become the public laboratories of nature study for the Nation. And from them specimens may be distributed to the city and State preserves, as is now being done with the elk of the Yellowstone, which are too abundant, and may be done later with the antelope.

If Congress will but make the funds available for the construction of roads over which automobiles may travel with safety (for all the parks are now open to motors) and for trails to hunt out the hidden places of beauty and dignity, we may expect that year by year these parks will become a more precious possession of the people, holding them to the further discovery of America and making them still prouder of its resources, esthetic as well as material.

JOHN BARTON PAYNE,
Secretary of the Interior.

PRESENTATION

THIS Nation is richer in natural scenery of the first order than any other nation; but it does not know it. It possesses an empire of grandeur and beauty which it scarcely has heard of. It owns the most inspiring playgrounds and the best equipped nature schools in the world and is serenely ignorant of the fact. In its national parks it has neglected, because it has quite overlooked, an economic asset of incalculable value.

The Nation must awake, and it now becomes our happy duty to waken it to so pleasing and profitable a reality. This portfolio is the morning call to the day of realization.

Individual features of several of our national parks are known the world over; but few to whom the Yosemite Valley is a household word know that its seven wonderful miles are a part of a scenic wonderland of eleven hundred square miles called the Yosemite National Park. So with the Yellowstone; all have heard of its geysers, but few indeed of its thirty-three hundred square miles of wilderness beauty. Some of the finest of our national parks here pictured you probably have never even heard of. The Sequoia National Park, a hundred miles south of the Yosemite, one of the noblest scenic areas in the world, is the home of more than a million sequoias, the celebrated Big Trees of California; but even its name is known to few. The Crater Lake National Park encloses the deepest and bluest lake in the world surrounded by walls of pearly fretted lavas of indescribable beauty—a very wonder spot; but it is probably least known of all.

The main object of this portfolio, therefore, is to present to the people of this country a panorama of our national parks and national monuments set side by side for their study and comparison. Each park will be found highly individual. The whole will be a revelation.

This is the first really representative presentation of American scenery of grandeur ever published, perhaps ever made. The selection is from photographs collected during a period of many months from all available sources, and represents the most striking work of many photographers.

The portfolio is dedicated to the American people. It is my great hope that it will serve to turn the busy eyes of this Nation upon its national parks long enough to bring some realization of what these pleasure gardens ought to mean, of what so easily they may be made to mean, to this people.

STEPHEN T. MATHER,
Director, National Park Service.

THE NATIONAL PARKS AT A GLANCE

Number, 19; Total Area, 10,859 Square Miles. Arranged chronologically in the order of their creation.

NATIONAL PARK and Date	LOCATION	AREA in square miles	DISTINCTIVE CHARACTERISTICS
HOT SPRINGS RESERVATION 1832	Middle Arkansas	1½	46 hot springs possessing curative properties—Many hotels and boarding houses in adjacent city of Hot Springs—Bathhouses under public control.
YELLOWSTONE 1872	Northwestern Wyoming	3,348	More geysers than in all rest of world together—Boiling springs—Mud volcanoes—Petrified forests—Grand Canyon of the Yellowstone, remarkable for gorgeous coloring—Large lakes and waterfalls—Wilderness inhabited by deer, elk, bison, moose, antelope, bear, mountain sheep, etc.
YOSEMITE 1890	Middle eastern California	1,125	Valley of world-famed beauty—Lofty cliffs—Romatic vistas—Waterfalls of extraordinary height—3 groves of big trees—Large areas of snowy peaks—Waterwheel falls.
SEQUOIA 1890	Middle eastern California	252	The Big Tree National Park—12,000 sequoia trees over 10 feet in diameter, some 25 to 36 feet in diameter.
GENERAL GRANT 1890	Middle California	4	Created to preserve the celebrated General Grant Tree, 35 feet in diameter—6 miles from Sequoia National Park.
MOUNT RAINIER 1899	West central Washington	324	Largest accessible single-peak glacier system—28 glaciers, some of large size—48 square miles of glacier, 50 to 1,000 feet thick—Remarkable subalpine wild-flower fields.
CRATER LAKE 1902	Southern Oregon	249	Lake of extraordinary blue in crater of extinct volcano, no visible inlet, or outlet—Sides 1,000 feet high.
WIND CAVE 1903	South Dakota	17	Large natural cavern.
PLATT 1904	Southern Oklahoma	1½	Sulphur and other springs possessing curative properties—Under Government regulation.
SULLYS HILL 1904	North Dakota	1½	Wooded hilly tract on Devils Lake.
MESA VERDE 1906	Southern Colorado	77	Most notable and best preserved prehistoric cliff dwellings in United States, if not in the world.
GLACIER 1910	Northwestern Montana	1,534	Rugged mountain region of unsurpassed alpine character—250 glacier-fed lakes of romantic beauty—60 small glaciers—Peaks of unusual shape—Precipices thousands of feet deep—Fine trout fishing.
ROCKY MOUNTAIN 1915	Northern Colorado	398	Heart of the Rockies—Snowy Range, peaks 11,000 to 14,250 feet altitude—Remarkable records of glacial period.
HAWAII 1916	Hawaii	118	Two active volcanoes, Mauna Loa, largest in the world, and Kilauea, whose lake of bubbling lava is world famed—A third volcano, Haleakala, crater 8 miles wide.
LASSEN VOLCANIC 1916	Northern California	124	Active volcano—Lassen Peak, 10,437 feet in altitude—Cinder Cone, 6,907 feet—Hot springs—Mud geysers.
MOUNT MCKINLEY 1917	South central Alaska	2,200	Highest Mountain in North America—Rises higher above surrounding country than any mountain in the world.
GRAND CANYON 1919	Northern Arizona	958	Greatest example of stream erosion in the world—More than 10 miles wide—More than 1 mile deep.
LAFAYETTE 1919	Maine Coast	8	Group of granite mountains rising upon Mount Desert Island.
ZION 1919	Southwestern Utah	120	Magnificent gorge (Zion Canyon), depth from 800 to 2,000 feet, with precipitous walls, of great beauty and scenic interest.

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DIFFERENCE BETWEEN A NATIONAL PARK AND A NATIONAL MONUMENT

THE difference between a national park and a national monument is not always easy to define. A national park is created by Congress with the implied purpose of development by appropriations for the public enjoyment. A national monument is proclaimed by the President to conserve some historical structure or landmark, or some restricted area of unusual scientific value; there is no presumption of development.

A national park is supposed to have park-like area, but several are very small. A national monument is supposed to be confined to the object conserved, but several have large areas.

The act of August 25, 1916, creating the National Park Service and recent appropriations for the development of several national monuments tend to further extinguish differences.

For travel purposes it may be assumed that all national parks within the United States are ready for all visitors, including motorists in their own cars. One can comfortably reach and see many of the national monuments, but it will be safer to make special inquiry in advance of starting.

Photograph by J. E. Haynes, St. Paul *OLD FAITHFUL*

THE YELLOWSTONE NATIONAL PARK

Photograph by J. E. Haynes, St. Paul

THE GREAT FALLS OF THE YELLOWSTONE, NEARLY TWICE AS HIGH AS NIAGARA

Below these falls the river enters the gorgeously colored Grand Canyon of the Yellowstone

Copyright, 1906, by W. S. Berry

ANTELOPE

THE LAND *of* WONDERS

THE Yellowstone National Park is the largest and most widely celebrated of our national parks. It is a wooded wilderness of thirty-three hundred square miles. It contains more geysers than are found in the rest of the world together. It has innumerable boiling springs whose steam mingles with the clouds.

It has many rushing rivers and large lakes. It has waterfalls of great height and large volume. It has fishing waters unexcelled.

It has canyons of sublimity, one of which presents a spectacle of broken color unequaled. It has areas of petrified forests with trunks standing. It has innumerable wild animals which have ceased unduly to fear man; in fact, it is unique as a bird and animal sanctuary.

It has great hotels and many public camps. It has two hundred miles of excellent roads.

In short, it is not only the wonderland that common report describes; it is also the fitting playground and pleasure resort of a great people; it is also the ideal summer school of nature study.

Photograph by George R King

THE UPPER FALLS OF THE YELLOWSTONE, A FEW MILES BELOW YELLOWSTONE LAKE

Above these falls the rushing river lies nearly level with surrounding country; below it begin the canyons

Photograph by George R. King

CREST OF THE LOWER FALLS

THREEFOLD PERSONALITY

THE Yellowstone is associated in the public mind with geysers only. Thousands even of those who, watches in hand, have hustled from sight to sight over the usual stage schedules, bring home vivid impressions of little else.

There never was a greater mistake. Were there no geysers, the Yellowstone watershed alone, with its glowing canyon, would be worth the national park. Were there also no canyon, the scenic wilderness and its incomparable wealth of wild-animal life would be worth the national park.

The personality of the Yellowstone is threefold. The hot-water manifestations are worth minute examination, the canyon a contemplative visit, the park a summer. Dunraven Pass, Mount Washburn, the canyon at Tower Falls, Shoshone Lake, Sylvan Pass—these are known to very few indeed. See all or you have not seen the Yellowstone.

Photograph by J. E. Haynes, St. Paul

CASTLE WELL, ONE OF THE INNUMERABLE HOT SPRINGS

These springs, whose marvelously clear water is a deep blue, have an astonishing depth

Photograph by Edward S. Curtis

THE CARVED AND FRETTED TERRACES AT MAMMOTH HOT SPRINGS

These great white hills, deposited and built up by the hot waters, sometimes envelope forest trees

Photograph by J. E. Haynes, St. Paul

THE GIANT GEYSER, IN MANY RESPECTS THE GREATEST OF ALL

It spouts for an hour at a time, the water reaching a height of 250 feet. Interval, six to fourteen days

Copyright by J. E. Haynes, St. Paul

THE NORRIS GEYSER BASIN

GEYSERS SPOUT AND STEAMING VAPORS RISE

THE first view of the geyser basins affords a sensation never to be forgotten. Early explorers imagined they smelled brimstone. Early lecturers were hissed and sometimes even stoned in the streets as imposters. Certainly the imaginative beholder acquires thrills he never before experienced.

There are more than forty geysers accessible in the three large basins on the west side. Some spout every few seconds, some every few minutes, others at intervals of hours or days, a few at irregular intervals of weeks. The eruptions vary from several feet to two hundred and fifty feet.

But the whole region bubbles and hisses and steams.

Photograph by J. E. Haynes, St. Paul

THE SPECTACULAR FOUNTAIN GEYSER, SELDOM IN ERUPTION

Photograph by J. E. Haynes, St. Paul

THE LIVELY RIVERSIDE GEYSER WHICH PLAYS EVERY FEW HOURS

Photograph by J. E. Haynes, St. Paul

ELECTRIC PEAK, A SUPERB LANDMARK OF THE NORTH SIDE

MANY-COLORED CANYON

FROM Inspiration Point, looking a thousand feet almost vertically down upon the foaming Yellowstone River, and southward three miles to the Great Falls, the hushed observer sees spread before him the most glorious kaleidoscope of color he will ever see in nature. The steep slopes are inconceivably carved by the frost and the erosion of the ages. Sometimes they lie in straight lines at easy angles, from which jut high rocky prominences. Sometimes they seem carved from the side walls. Here and there jagged rocky needles rise perpendicularly like groups of gothic spires.

And the whole is colored as brokenly and vividly as the field of a kaleidoscope. The whole is streaked and spotted in every shade from the deepest orange to the faintest lemon, from deep crimson through all the brick shades to the softest pink, from black through all the grays and pearls to glistening white. The greens are furnished by the dark pines above, the lighter shades of growth caught here and there in soft masses on the gentler slopes and the foaming green of the plunging river so far below. The blues, ever changing, are found in the dome of the sky overhead.

Copyright by Haynes, St. Paul

SYLVAN LAKE, BELOW SYLVAN PASS, CODY ROAD

Copyright by Gifford

VIEW FROM MOUNT WASHBURN SHOWING YELLOWSTONE LAKE IN DISTANCE

The northern east side is a country of striking and romantic scenery made accessible by excellent roads

Photograph by J. E. Haynes

THE HOLY CITY FROM THE CODY ROAD, EASTERN ENTRANCE

Photograph by J. E. Haynes

ENTERING YELLOWSTONE FROM THE SOUTH—LEWIS FALLS

Photograph by S. N. Leek

Copyright by S. N. Leek

THE SOUTH ENTRANCE IS NEAR THE LORDLY TETON RANGE, JUST OVER THE BOUNDARY

Copyright by J. E. Haynes, St. Paul

STANDING UPON ARTIST'S POINT, WHICH PUSHES OUT ALMOST OVER THE FOAMING RIVER A THOUSAND FEET BELOW, THE INCOMPARABLE CANYON OF THE YELLOWSTONE WIDENS BEFORE YOU INTO THE MOST GLORIOUS KALEIDOSCOPE OF COLOR YOU WILL EVER SEE IN NATURE

Copyright by S. N. Leek

THIRTY THOUSAND ELK ROAM THIS SANCTUARY WILDERNESS

Photograph by Albert Schlechten

IT IS THE NATURAL HOME OF THE CELEBRATED BIGHORN, THE ROCKY-MOUNTAIN SHEEP

Photograph by G. Swanson

Deer Make Unexpected Silhouettes at Frequent Intervals

GREATEST ANIMAL REFUGE

THE Yellowstone National Park is by far the largest and most successful wild-animal preserve in the world. Since it was established in 1872 hunting has been strictly prohibited, and elk, bear, deer of several kinds, antelope, bison, moose, and bighorn mountain sheep roam the valleys and mountains in large numbers. Thirty thousand elk, for instance, live in the park. Antelope, nearly extinct elsewhere, here abound.

These animals have long since ceased to fear man as wild animals do everywhere except in our national parks. While few tourists see them who follow the beaten roads in the everlasting sequence of stages, those who linger in the glorious wilderness see them in an abundance that fairly astonishes.

Photograph by S. N. Leek

In Winter When the Snows Are Deep Park Rangers Leave Hay in Convenient Spots

Photograph by Edward S. Curtis

THERE ARE TWO PROSPEROUS HERDS OF BISON, OR BUFFALO, BOTH INCREASING RAPIDLY. THE WILD HERD IS A REMNANT OF THE WILD HERDS OF THE PLAINS, WHICH WERE DRIVEN BACK BY HUNTERS AND SOUGHT REFUGE IN THE MOUNTAINS

ANIMALS REALLY AT HOME

Photograph by Edward S. Curtis

UNLIKE THE GRIZZLY, THE BROWN BEAR CLIMBS TREES QUICKLY AND EASILY

VERY different, indeed, from the beasts of the after-dinner story and the literature of adventure are the wild animals of the Yellowstone. Never shot at, never pursued, they are comparatively as fearless as song-birds nestling in the homestead trees.

Wilderness bears cross the road without haste a few yards ahead of the solitary passer-by, and his accustomed horses jog on undisturbed. Deer by scores lift their antlered heads above near thickets to watch his passing. Elk scarcely slow their cropping of forest grasses. Even the occasional moose, straying far from his southern wilderness, scarcely quickens his long lope. Herds of antelope on near-by hills watch but hold their own.

Only the grizzly and the mountain sheep, besides the predatory beasts, still hide in the fastnesses. But even the mountain sheep loses fear and joins the others in winters of heavy snow when park rangers scatter hay by the roadside.

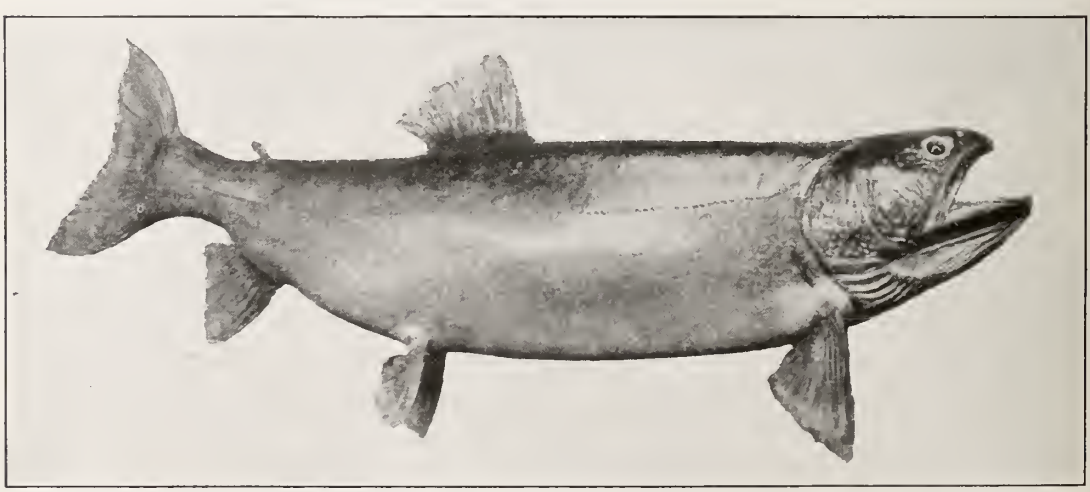
Photograph by S. N. Leck

THE PARADISE OF ANGLERS

THE Yellowstone is a land of splendid rivers. Three watersheds find their beginnings within its borders. From Yellowstone Lake flows north the rushing Yellowstone River with its many tributaries; from Shoshone, Lewis, and Heart Lakes flows south the Snake River; and in the western slopes rise the Madison and its many tributaries. All are trout waters of high degree.

The native trout of this region is the famous cutthroat. The grayling is native in the Madison River and its tributaries. Others have been planted.

Besides the stream fishing, which is unsurpassed, the lakes, particularly Shoshone Lake and certain small ones, afford admirable sport.



Photograph by J. E. Haynes, St. Paul

A Big Lake Trout from Shoshone Lake

The game cutthroat is the commonest trout in the Yellowstone, but there are six other varieties

Photograph by J. E. Haynes St Paul

CUTTHROATS FROM ONE TO THREE OR FOUR POUNDS ARE TAKEN IN LARGE NUMBERS AT THE YELLOWSTONE LAKE OUTLET

Copyright by Gifford

YOUNG PELICANS ON MOLLY ISLAND IN YELLOWSTONE LAKE

The Yellowstone pelicans are very large and pure white, a picturesque feature of the park

HOUSEKEEPING IN THE OPEN

Photograph by J. E. Haynes

TROUTING IN YELLOWSTONE LAKE

THERE ARE ALSO LARGE PUBLIC CAMPS

LIVING *in the* YELLOWSTONE

THE park has entrances on all four sides. Three have railroad connections; the southern entrance, by way of Jackson Hole and past the jagged snowy Tetons, is available for vehicles. The roads from all entrances enter a central belt road which makes a large circuit connecting places of special interest.

Four large hotels are located at points convenient for seeing the sights, and are supplemented by public camps at modest prices.

But the day of the unhurried visitor has dawned. If you want to enjoy your Yellowstone, if, indeed, you want even to *see* it, you should make your minimum twice five days; two weeks is better; a month is ideal.

Spend the additional time at the canyon and on the trails. See the lake and the pelicans. Fish in Shoshone Lake. Climb Mount Washburn. Spend a day at Tower Falls. See Mammoth Hot Springs. Hunt wild animals with a camera. Stay with the wilderness and it will repay you a thousandfold. Fish a little, study nature in her myriad wealth—and live.

The Yellowstone National Park is ideal for camping out. When people realize this it should quickly become one of the most lived in, as it already is one of the most livable, of all our national parks.

Photograph by J. E. Haynes, St. Paul

OLD FAITHFUL INN

Copyright by J. E. Haynes, St. Paul

THE MAMMOTH HOTEL

Photograph by J. E. Haynes, St. Paul

THE LAKE HOTEL

THREE OF THE FOUR LARGE HOTELS IN THE YELLOWSTONE NATIONAL PARK

YOSEMITE

Photograph by A. C. Pillsbury

THE HIGHEST WATERFALL IN THE WORLD—THE YOSEMITE FALLS

The Upper Fall measures 1,430 feet, as high as nine Niagaras. The Lower Fall measures 320 feet
The total drop from crest to river, including intermediate cascades, is almost half a mile

Photograph by U. S. Reclamation Service

THE YOSEMITE VALLEY FROM INSPIRATION POINT, SHOWING BRIDALVEIL FALLS

LAND *of* ENCHANTMENT

WHO does not know of the Yosemite Valley? And yet, how few have heard of the Yosemite National Park! How few know that this world-famous, incomparable Valley is merely a crack seven miles long in a scenic masterpiece of eleven hundred square miles!

John Muir loved the Valley and crystallized its fame in phrase.

But still more he loved the National Park, which he describes as including "innumerable lakes and waterfalls and smooth silky lawns; the noblest forests, the loftiest granite domes, the deepest ice-sculptured canyons, the brightest crystalline pavements, and snowy mountains soaring into the sky twelve and thirteen thousand feet, arrayed in open ranks and spiry-pinnacled groups partially separated by tremendous canyons and ampitheaters; gardens on their sunny brows, avalanches thundering down their long white slopes, cataracts roaring gray and foaming in the crooked rugged gorges, and glaciers in their shadowy recesses working in silence, slowly completing their sculptures; newborn lakes at their feet, blue and green, free or encumbered with drifting icebergs like miniature Arctic Oceans, shining, sparkling, calm as stars."

THE YOSEMITE VALLEY FROM GLACIER POINT

The Upper and Lower Yosemite Falls are here shown in partial profile

Photograph by J. T. Boysen

HALF DOME, FROM NEAR WASHINGTON COLUMN

Its summit is 4,892 feet above the floor of the Valley

Photograph by A. C. Pillsbury

THE SHEER IMMENSITY OF THE PRECIPICES ON EITHER SIDE THE VALLEY'S PEACEFUL FLOOR, THE ROMANTIC MAJESTY OF THE GRANITE WALLS, AND THE UNREAL, ALMOST FAIRYLIKE QUALITY OF THE EVER-VARYING WHOLE, ATTEST IT INCOMPARABLE

Early Morning Beside Mirror Lake

This lake is famous for its reflections of the cliffs. Mount Watkins in the background

Copyrighted, 1910, by J. T. Boysen

EL CAPITAN AT SUNSET

This gigantic rock, whose hard granite resisted the glacier, rises 3,604 feet from the Valley floor

THE VALLEY INCOMPARABLE

Photograph by U. S. Reclamation Service

BEAUTIFUL VERNAL FALLS

THE first view of most spots of unusual celebrity often falls short of expectation, but this is seldom, if ever, true of the Yosemite Valley. The sheer immensity of the precipices on either side of the peaceful floor; the loftiness and the romantic suggestion of the numerous waterfalls; the majesty of the granite walls; and the unreal, almost fairy quality of the ever-varying whole can not be successfully foretold.

This valley was once a tortuous river canyon. So rapidly was it cut by the Merced that the tributary valleys soon remained hanging high on either side. Then the canyon became the bed of a great glacier. It was widened as well as deepened, and the hanging character of the side valleys was accentuated.

This explains the enormous height of the waterfalls.

The Yosemite Falls, for instance, drops 1,430 feet in one sheer fall, a height equal to nine Niagara Falls piled one on top of the other. The Lower Yosemite Fall, immediately below, has a drop of 320 feet, or two Niagaras more. Vernal Falls has the same height. The Nevada Falls drops 594 feet sheer, and the celebrated Bridalveil Falls 620 feet. Nowhere else in the world may be had a water spectacle such as this.

Photograph by H. C. Tibbitts

ITS NAME IS SELF-EVIDENT—THE BRIDALVEIL FALLS

Photograph by H. C. Tibbitts.

TENAYA LAKE.

A STRIKING VIEW OF NEVADA FALLS, LIBERTY CAP ON LEFT

Photograph by A. C. Pillsbury

VERNAL AND NEVADA FALLS AND HALF DOME FROM THE GLACIER POINT TRAIL

Photograph by J. T. Boysen

A BEND IN THE BIG OAK FLAT ROAD

CHARM OF THE SCENIC WILD

Photograph by U. S. Reclamation Service

THE GRIZZLY GIANT, THE BIGGEST YOSEMITE SEQUOIA

SUMMER in the Yosemite is unreal. The Valley, with its foaming falls dissolving into mists, its calm forests hiding the singing river, its enormous granites peaked and domed against the sky, its inspiring silence haunted by distant water, suggests a dream. One has a sense of fairyland and the awe of infinity.

Imagine Cathedral Rocks rising twenty-six hundred feet above the wild flowers, El Capitan thirty-six hundred feet, Sentinel Dome four thousand feet, Half Dome five thousand feet, and Clouds Rest six thousand feet! And among them, the waterfalls!

Even the weather appears impossible; the summers are warm, but not too warm; dry, but not too dry; the nights cold and marvelously starry.

A few miles away are the Big Trees, not the greatest groves nor the greatest trees, for those are in the Sequoia National Park, a hundred miles south, but three groves containing monsters which, next to Sequoia's, are the hugest and the oldest living things. Of these the Grizzly Giant is king—whose diameter is nearly thirty feet, whose girth is over ninety-nine, and whose height is more than two hundred. Their presence commands the silence due to worship.

Winter is becoming a feature in the life of the Valley. Hotels are open to accommodate an increasing flow of visitors. The falls are still and frozen, the trees laden with snowy burdens. The greens have vanished; the winter sun shines upon a glory of gray and white.

Winter sports are rapidly becoming popular on the floor of the Valley.

Photograph by J. T. Boysen

SLEIGHING AND SKIING IN YOSEMITE

Winter sports are rapidly becoming popular on the floor of the Valley

Photograph by J. T. Boysen

SKATING ON ICE ON MIRROR LAKE

LIVING IN THE WILDERNESS

Copyrighted, 1910, by J. T. Boysen
WHO'S COMING?

Copyrighted, 1910, by J. T. Boysen
WOOF!

LIVING is comfortable in the Yosemite. Several roomy public camps, and a fine hotel offer the visitor to the Valley a choice of kind and price. Above the Valley lodges and most comfortable camps occur at convenient intervals on road and trail. There is a new hotel on Glacier Point.

These improved conditions begin the larger development of the Yosemite National Park which the Department of the Interior has planned so long and so carefully. It has there inaugurated a model policy for all the national parks. The Yosemite is reached from Merced.

The Yosemite is an excellent place to camp out. One may have choice of many kinds of mountain country. Nearly everywhere the trout fishing is exceptionally fine. Camping outfits may be rented and supplies purchased in the Valley. Garages for motorists and rest-houses for trampers will be found at convenient intervals.

TIOGA ROAD

ABOVE the north rim of the valley the old Tioga Road, which the Department of the Interior acquired in 1915 and put into good condition, crosses the park from east to west, affording a new route across the Sierra and opening to the public for the first time the magnificent scenic region in the north.

The Tioga Road was built in 1881 to a mine soon after abandoned. For years it has been impassable. It is now the gateway to a wilderness heretofore accessible only to campers.

NORTH OF THE VALLEY'S RIM

BEFORE the restored Tioga Road made accessible the magnificent mountain and valley area constituting the northern half of the Yosemite National Park, this pleasure paradise was known to none except a few enthusiasts who penetrated its wilderness year after year with camping outfits.

This is the region of rivers and lakes and granite domes and brilliantly polished glacial pavements. The mark of the glacier is seen on every hand.

It is the region of small glaciers, remnants of a gigantic past, of which there are several in the park. It is the region of rock-bordered glacier lakes of which there are more than two hundred and fifty. It is the region, above all, of small, rushing rivers and of the roaring, foaming, twisting Tuolumne.

From the base of the Sierra crest, born of its snows, the Tuolumne River rushes westward roughly paralleling the Tioga Road. Midway it slants sharply down into the Tuolumne Canyon forming in its mad course a water spectacle destined some day to world fame.

Photograph by H. C. Tibbitts

TIOGA ROAD SCENERY

Photograph by H. C. Tibbitts

South of the Valley's Rim. On the Right May Be Seen the Back of Sentinel Dome; on the Left the Back of Half Dome

Photograph by H. C. Tibbitts

THE CELEBRATED TUOLUMNE MEADOWS, FROM THE TIOGA ROAD NEAR SODA SPRINGS, SHOWING CATHEDRAL PEAK

Photograph by W. L. Huber

THE HIGH SIERRA: VIEW OF MOUNT RITTER FROM KUNA CREST

Photograph by Herbert W. Gleason

BEAUTIFUL ROGERS LAKE AND REGULATION PEAK IN THE NORTHERN PART OF THE PARK

Photograph by W. L. Huber

SIERRA CLUB GETTING DINNER IN TUOLUMNE MEADOW

Photograph by C. O. Schneider

A BED CHAMBER IN YOSEMITE

Travelers on the trails carry no tents because it does not rain. A sleeping-bag, a pine-needle mattress, a sheltered grove, and a ceiling of green leaves amply suffices.

Photograph by A. C. Pillsbury

A Close View of the Big Waterwheel Tuolumne Canyon

Photograph by W. L. Huber

THE WATERWHEEL BELOW CALIFORNIA FALLS

MAD WATERS *of* TUOLUMNE

NONE but the hardiest climbers have clambered down the Grand Canyon of the Tuolumne and seen its leaping waters.

Here the river, slanting sharply, becomes, in John Muir's phrase, "one wild, exulting, onrushing mass of snowy purple bloom spreading over glacial waves of granite without any definite channel, gliding in magnificent silver plumes, dashing and foaming through huge bowlder dams, leaping high in the air in wheellike whirls, displaying glorious enthusiasm, tossing from side to side, doubling, glinting, singing in exuberance of mountain energy."

Photograph by A. C. Pillsbury

A PAIR OF TUOLUMNE WATERWHEELS

THE EVERLASTING SNOWS

SUMMITS of perpetual snow are, for most Americans, a new association with Yosemite. But the region's very origin was that Sierra whose crest peaks on the park's eastern boundary still shelter in shrunken old age the once all-powerful glaciers.

Excelsior, Conness, Dana, Kuna, Blacktop, Lyell, Long—from the companionship of these great peaks descended the ice-pack of old and descend to-day the sparkling waters of the Tuolumne and the Merced.

From their great summits the climber beholds a sublime wilderness of crowded, towering mountains, a contrast to the silent, uplifting Valley as striking as mind can conceive. Everlasting snows fill the hollows between the peaks and spatter their jagged granite sides. The glaciers feed innumerable small lakes.

Photograph by W. L. Huber

ASCENDING MOUNT LYELL

Photograph by W. L. Huber

CROSSING SNOW HUMMOCKS IN THE ASCENT OF MOUNT LYELL

THE SEQUOIA NATIONAL PARK

Photograph by A. C. Pillsbury

MORNING IN THE GIANT FOREST

Photograph by Rodney L. Glisan

VIEW OF THE BIG ARROYO FROM SAWTOOTH PEAK

Photograph by U. S. Geological Survey

It Is the Ideal Park for Camping

LAND OF GIANT TREES

NATURE'S forest masterpiece is John Muir's designation of the giant tree after which is named the Sequoia National Park in middle eastern California. Here, within an area of two hundred and thirty-seven square miles, are found several large groves of the celebrated *Sequoia Washingtoniana*, popularly known and widely celebrated as the Big Tree of California.

More than a million of these trees grow within the park's narrow confines, many of them mere babes of a few hundred years, many sturdy youths of a thousand years, many in the young vigor of two or three thousand years, and a few in full maturity. The principal entrance is Visalia, California.

Half a dozen miles away is the General Grant National Park, whose four square miles were set apart because they contained the General Grant Tree, second only in size and age to the patriarch of all, the General Sherman Tree.

On Sequoia's favored slopes grow other monsters also. It is the park of magnificent trees of many kinds, and it is the park of birds.

The Sequoia National Park is the gateway to one of the grandest scenic areas in this or any other land. Over its borders to the north and east lies a land of sublime nobility whose wild rivers and tortuous canyons, whose glacier-carved precipices and vast snowy summits culminating in the supreme altitude of Whitney, will make it some day surpassed in celebrity by none.

THE BIGGEST THING ALIVE

Photograph by Lindley Eddy

THE GENERAL SHERMAN TREE

The largest and oldest living thing in all the world

OF the 1,156,000 sequoia trees, old and young, which form these groves, twelve thousand exceed ten feet in diameter. Muir states that a diameter of twenty feet and a height of two hundred and seventy-five is perhaps the average for mature and favorably situated trees, while trees twenty-five feet in diameter and approaching three hundred in height are not rare.

But the greatest trees have astonishing dimensions:

General Sherman: diameter, 36.5 feet; height, 279.9 feet.

General Grant: diameter, 35 feet; height, 264 feet.

Abraham Lincoln: diameter, 31 feet; height, 270 feet.

California: diameter, 30 feet; height, 260 feet.

George Washington: diameter, 29 feet; height, 255 feet.

A little effort will help you realize these dimensions. Measure and stake in front of a church the diameter of the General Sherman Tree. Then stand back a distance equal to the tree's height. Raise your eyes slowly and imagine this huge trunk rising in front of the church. When you reach a point in the sky forty-five degrees up from the spot on which you stand you will have the tree's height were it growing in front of your church.

THE OLDEST THING ALIVE

THE General Sherman Tree is the oldest living thing. At the birth of Moses it was probably a sapling. Its exact age can not be determined without counting the rings, but it is probably in excess of thirty-five hundred years. This looks back long before the beginning of human history. When Christ was born it was a lusty youth of fifteen hundred summers.

There are many thousands of trees in the Sequoia National Park which were growing thriftily when Christ was born; hundreds which were flourishing while Babylon was in its prime; several which antedated the pyramids on the Egyptian desert.

John Muir counted four thousand rings on one prostrate giant. This tree probably sprouted while the Tower of Babel was still standing.

The sequoia is regular and symmetrical in general form. Its powerful, stately trunk is purplish to cinnamon brown and rises without a branch a hundred or a hundred and fifty feet—which is as high or higher than the tops of most forest trees. Its bulky limbs shoot boldly out on every side. Its foliage, the most feathery and delicate of all the conifers, is densely massed.

The wood is almost indestructible except by fire.

Photograph by W. L. Huber

THE GENERAL GRANT TREE

Second in size and age only to the General Sherman Tree

Photograph by George F. Belden

"Deep in the Woody Wilderness"

WILDERNESS OF MONSTERS

PERSONS who have seen the Mariposa Grove in the Yosemite National Park have seen sequoias of the noblest type; but only in the Giant Forest of the Sequoia National Park will they see them in the impressive glory of massed multitude and wildest grandeur. To walk and wonder through these woods, even for a few hours, is to feel an emotion which can be duplicated nowhere else.

It is not the sequoias alone, as in the Mariposa Grove, that stir the soul, but the bewildering and climatic repetition of monsters rising singly and superbly grouped from a dense and seemingly endless forest of noble growths of many other kinds.

Without the sequoias this forest would be notable. With their constant unexpected repetition the effect is dramatic, even breath-taking. Many of the very greatest trees are happened upon casually as the visitor winds through the bush-grown aisles of pine, and their sudden appearance is the more dramatic because of the freedom of their red pillared stems from the bright green flowing moss upon the trunks and branches of the uncountable pines.

Until July, 1916, when Congress appropriated $50,000 for the purchase of a part of the private holdings in the Giant Forest, it was our national misfortune and peril that most of these monster trees remained the property of individuals. The balance of the property was purchased for $20,000 by the National Geographic Society and donated to the United States.

Photograph by Lindley Eddy

VISTAS OF THE GIANT FOREST

Many of these trees were growing thriftily when Christ was born

Photograph by Lindley Eddy

ALTA PEAK FROM MORO ROCK

Photograph by H. C. Tibbitts

ALTA MEADOWS NEAR THE GIANT FOREST

Photograph by Lindley Eddy

SUNSET FROM THE RIM OF MARBLE FORK CANYON

Photograph by C. H. Hamilton

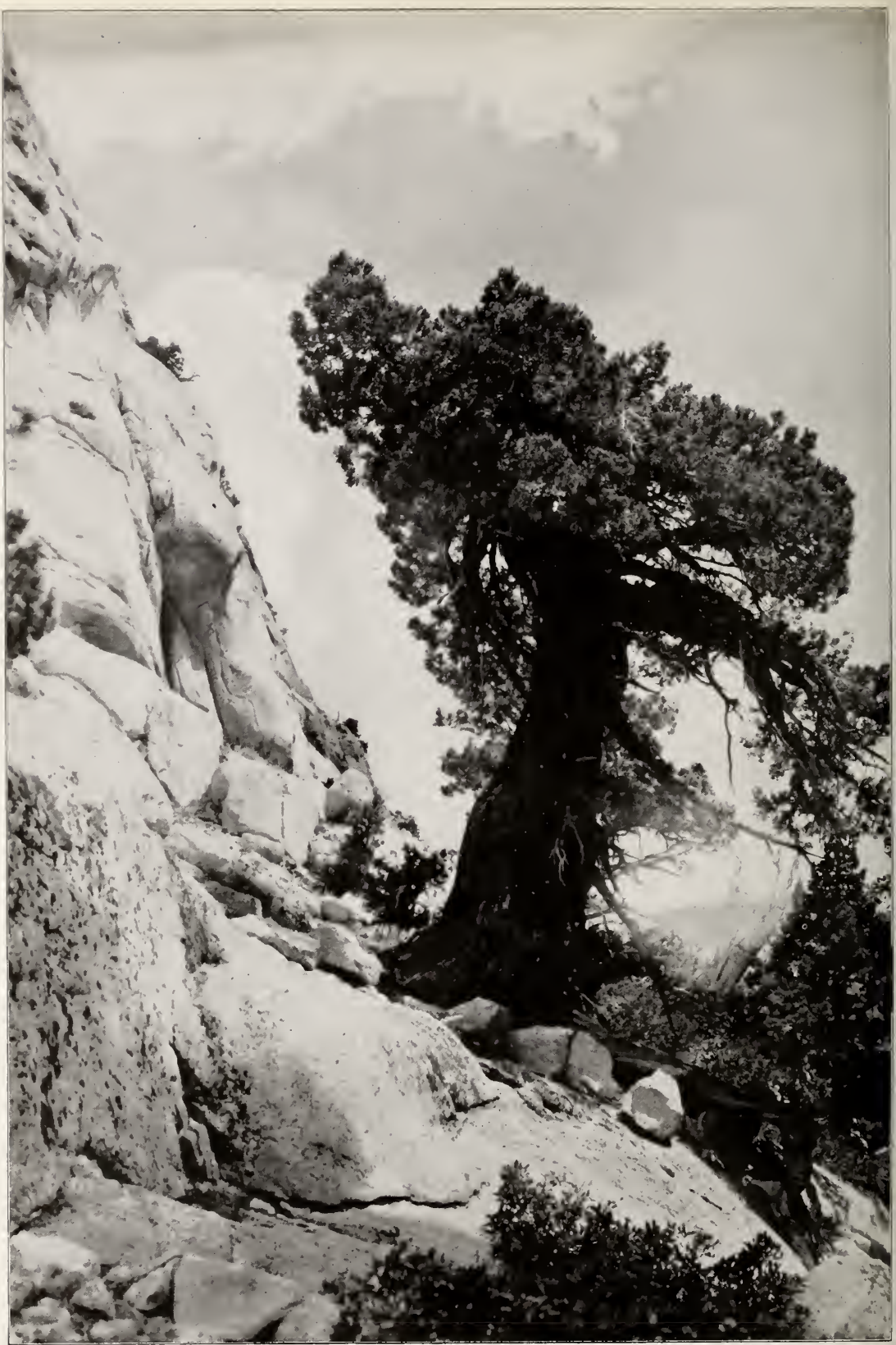
THE SIERRA CLUB IN CAMP

Photograph by H. E. Roberts

CAMPING OUT IN GENERAL GRANT NATIONAL PARK

Photograph by H. E. Roberts

SEQUOIA AND FIR IN THE GENERAL GRANT NATIONAL PARK



Photograph by C. H. Hamilton

AN AGED JUNIPER

Sequoia is the park of big trees of many kinds, and it is the park of birds

THE GREATER SEQUOIA

ONE can not think or speak of the Sequoia National Park without including the extraordinary scenic country lying beyond its boundaries to the north and east. Not that there is much in common between the two, for the park marks the supremacy of forest luxuriance and the outlying country the supremacy of rock-sculptured canyon and snowy summit.

And yet there is the common note of supremacy, each of its own kind.

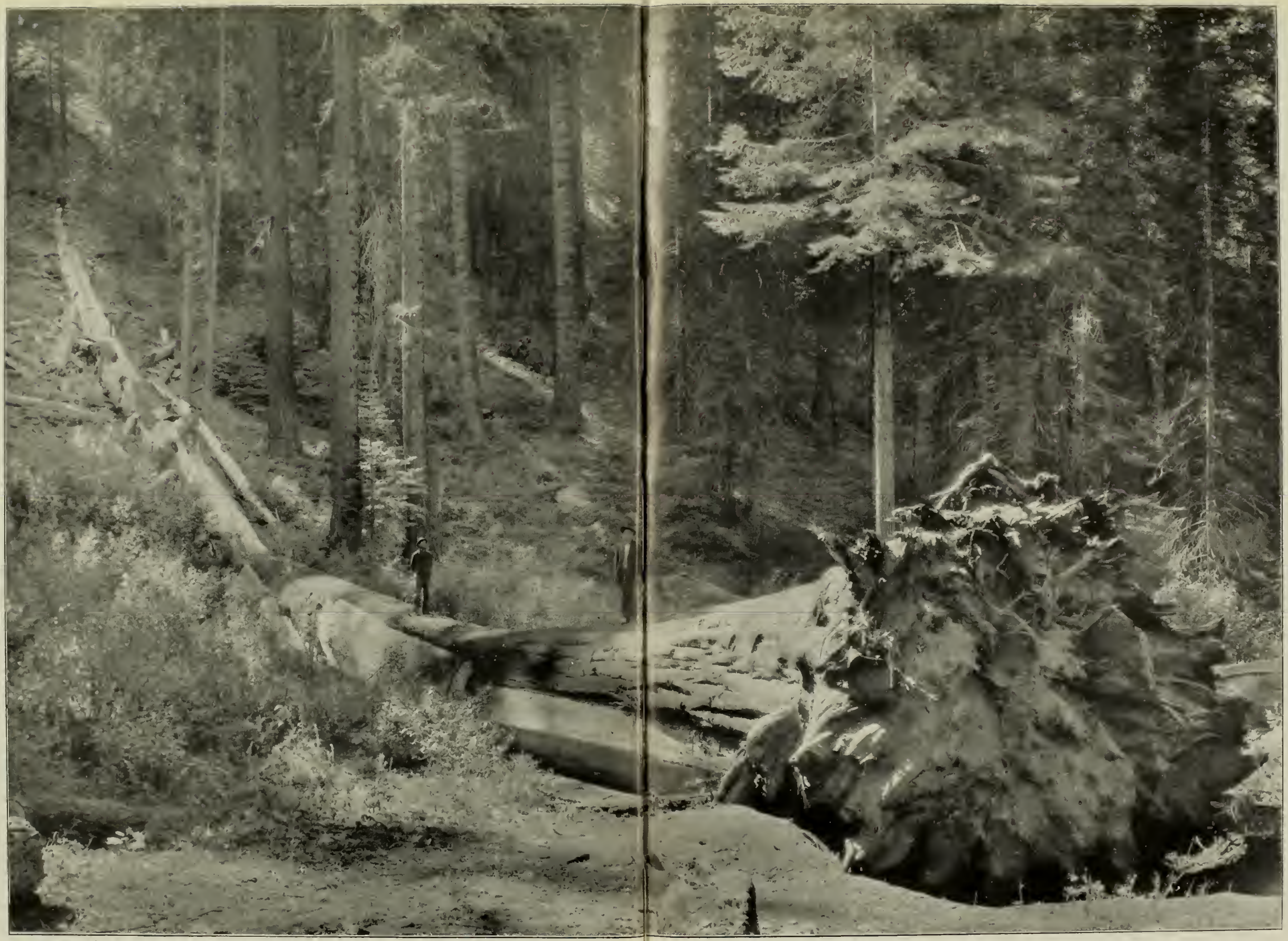
And there is the common note of continuity, for, from the lowest valley of the wooded park to the peak of our loftiest height, Mount Whitney, nature's painting runs the gamut. The parts are indivisible; to separate them is to cut in two the canvas of the Master.

It is this noble area which it is proposed to call the Roosevelt National Park as a memorial to the statesman who was, first of all, the apostle of the out-of-doors. The country-wide movement to this end found its expression in a bill before Congress early in 1919, which, however, with many other important bills, failed to reach a vote upon the statutory adjournment of Congress on March 4.

Photograph by H. C. Tibbitts

THE GOLDEN TROUT CREEK

The trout caught in this stream are brilliantly golden. They are found nowhere else in the world except where transplanted from this stream



Photograph by Lindley Eddy

THE FALLEN GIANT

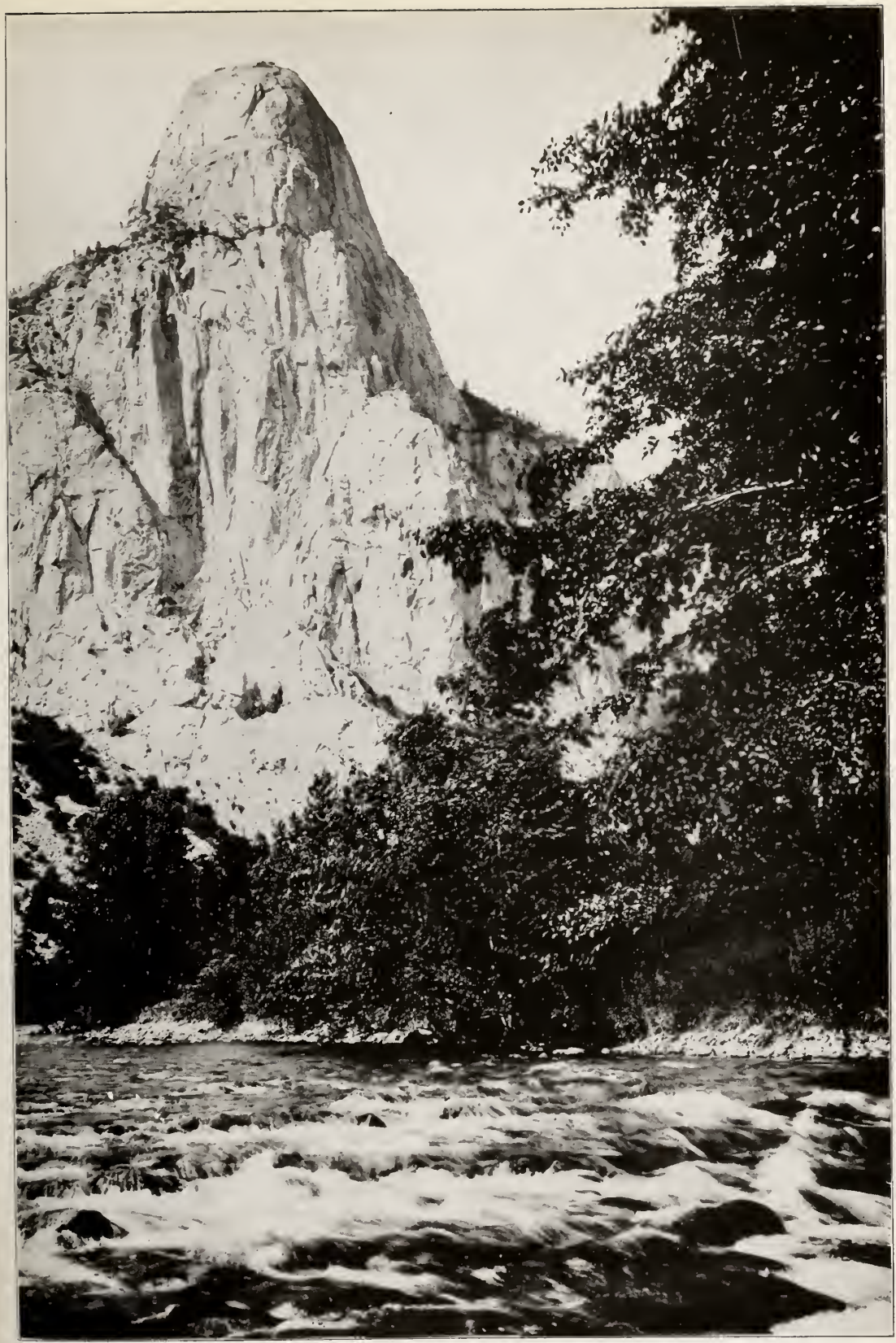
This trunk measures 288 feet. Sequoia wood is almost indestructible except by fire. This tree may have been prostrate for many centuries

Photograph by H. C. Tibbitts

THE CELEBRATED KINGS RIVER CANYON

Photograph by H. C. Tibbitts

UNIVERSITY PEAK FROM KEARSARGE PASS



Photograph by J. N. Le Conte

TEHIPITE DOME, 3,000 FEET SHEER ABOVE THE KINGS RIVER

Photograph by S. H. Willard

Mount Brewer, "The Mountain Magnificent," From East Lake

Photograph by S. H. Willard

Rae Lake, Probably the Most Beautiful in the High Sierra

Photograph by S. H Willard

GRAND SENTINEL, TOWERING 3,500 FEET ABOVE THE RIVER, IS ONE OF THE FEATURES OF KINGS RIVER CANYON

KINGS AND KERN CANYONS

WELL outside the park's boundaries and overlooking it from the east the amazing, craggy Sierra gives birth in glacial chambers to two noble rivers. A hundred thousand rivulets trickle from the everlasting snows; ten thousand resultant brooks roar down the rocky slopes; hundreds of resultant streams swell their turbulent, trout-haunted currents.

One of these rivers, the Kings, flows west, paralleling the northern boundary of the park. The other, the Kern, flows south, paralleling its eastern boundary.

The Kings River Canyon, the Tehipite Valley, and the Canyon of the Kern are practically matchless for the wild quality of their beauty and the majesty of their setting. The traveler goes home to plan his return, for this is a country whose peculiar charm lays an enduring clutch upon desire. "The Greater Sequoia" has few visitors yet—but they are worshipers.

Unlike many areas of extreme rocky character, this is not specially difficult to travel; it curiously adapts itself to trails. It is an ideal land for the camper. But one must go well equipped. There must be good guides, good horses, and plenty of warm clothing. The difference here between a good and an indifferent equipment is the difference between satisfaction and misery.

Photograph by S. H. Willard

ROARING FORK FALLS ON THE SOUTH FORK OF THE KINGS

Photograph by H. C. Tibbitts

HERE THE SIERRA HAS MASSED HER MOUNTAINS; TUMBLED THEM WILLFULLY, RECKLESSLY, INTO ONE TITANIC, SPRAWLING HEAP

Photograph by H. C. Tibbitts

SUMMIT OF TABLE MOUNTAIN

SIERRA'S CREST *and* OUR LOFTIEST MOUNTAIN

THE Sierra reaches its mightiest climax a few miles east of the present Sequoia National Park in Mount Whitney, the highest mountain in the United States. No towering, isolated summit is Whitney, like Mount Rainier and Longs Peak, but literally a climax; for here the Sierra has massed her mountains, tumbled them willfully, recklessly, into one sprawling, titanic heap, as though this were the dumping ground for all left over after the making of America.

The effect is imposing, breathless, overwhelming.

Out of this mass emerges one higher than the rest. That is Mount Whitney. Its altitude is 14,501 feet.

The journey to Whitney summit is a progress of inspiration and climax. From Visalia automobiles carry you under the very shadows of the Big Trees. From there it is a matter of horseback and pack train. Over the park boundaries into the magic of the mountains; up the headwaters of the Kaweah; across the splendors of the Great Western Divide; into and over the Kern; then up, up, up, threading passes, skirting precipices, edging glaciers, to the top.

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Photograph by Mark Daniels

No Towering, Isolated Summit Is Mount Whitney, Like Mount Rainier and Longs Peak, but Literally a Climax. Out of the Mass Emerges One Higher Than the Rest; That Is All

The Summit of Mount Whitney, Nearly Three Miles High

Photograph by Emerson Hough

Summit of Mount Whitney. The Stone Shelter on Mount Whitney's Summit

MOUNT RAINIER NATIONAL PARK

Photograph by Curtis & Miller

A Rippling River of Ice 400 Feet Thick Flowing from the Shining Summit

Looking from a wild-flower slope down upon the celebrated Nisqually Glacier and up at Columbia Crest

Photograph by Curtis & Miller

ENTRANCE TO MOUNT RAINIER NATIONAL PARK

THE FROZEN OCTOPUS

FROM the Cascade Mountains in Washington rises a series of volcanoes which once blazed across the sea like giant beacons. Today, their fires quenched, they suggest a stalwart band of Knights of the Ages, helmeted in snow, armored in ice, standing at parade upon a carpet patterned gorgeously in wild flowers.

Easily chief of this knightly band is Mount Rainier, a giant towering 14,408 feet above tidewater in Puget Sound. Home-bound sailors far at sea mend their courses from his silver summit.

This mountain has a glacier system far exceeding in size and impressive beauty that of any other in the United States. From its snow-covered summit twenty-eight rivers of ice pour slowly down its sides. Seen upon the map, as if from an aeroplane, one thinks of it as an enormous frozen octopus stretching icy tentacles down upon every side among the rich gardens of wild flowers and splendid forests of firs and cedars below.

Photograph by Curtis & Miller

ABOVE EVERY CURVE OF THE PARADISE ROAD LOOMS THE GREAT WHITE MOUNTAIN

Photograph by Curtis & Miller

FROM UNDER THE SHADOWY FIRS OF VAN TRUMP PARK IT GLISTENS STARTLINGLY

Photograph by Curtis & Miller

ONE OF THE GREAT SPECTACLES OF AMERICA IS MOUNT RAINIER, FROM INDIAN HENRYS HUNTING GROUND, GLISTENING AGAINST THE SKY AND PICTURED AGAIN IN MIRROR LAKE

Photograph by Curtis & Miller

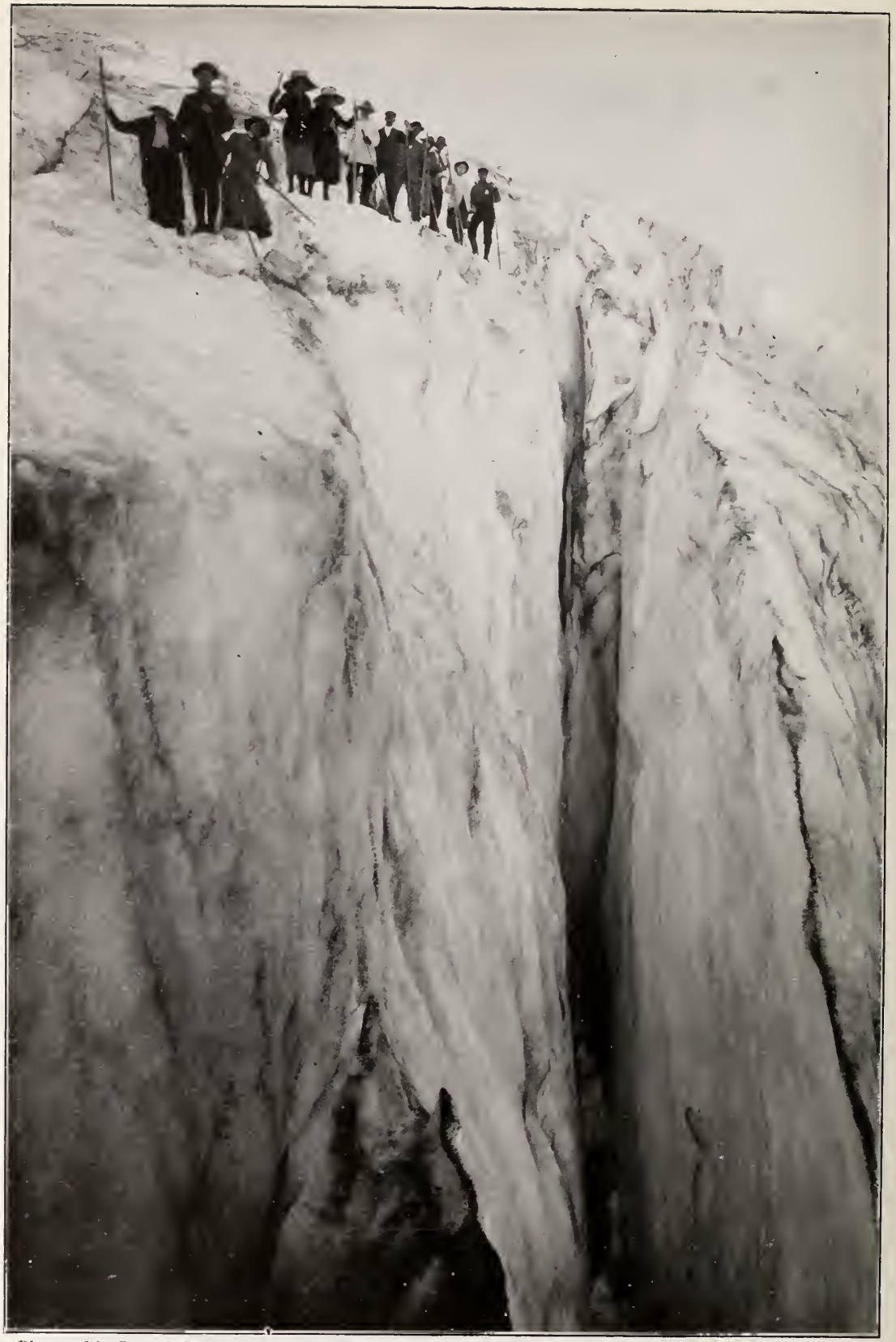
THE TWO TAHOMA GLACIERS MAY BE SEEN THROUGH THEIR WHOLE COURSES FROM INDIAN HENRYS HUNTING GROUND

The Tahoma, on the left, begins at the summit; the South Tahoma begins in the cirque just below Point Success, the highest point shown in the picture; they circle in opposite directions around rocky Glacier Island and join in the foreground

Photograph by Curtis & Miller

EVERYWHERE, BETWEEN AND TOUCHING THE ICY GLACIER FINGERS, ARE GORGEOUS GARDENS OF LUXURIANT WILD FLOWERS

"As if Nature," writes John Muir, "glad to make an open space between woods so dense and ice so deep, were economizing the precious ground"



Photograph by Curtis & Miller

LOOKING INTO A GREAT CREVASSE IN THE STEVENS GLACIER

Crevasses are caused by the swifter motion of the middle than the sides. This ice is 400 feet deep

THE GIANT RIVERS OF ICE

EVERY winter the moisture-laden winds from the Pacific, suddenly cooled against its summit, deposit upon Rainier's top and sides enormous snows. These, settling in the mile-wide crater which was left after an explosion in some prehistoric age which carried away perhaps two thousand feet of the volcano's former height, press with overwhelming weight down the mountain's sloping sides.

Thus are born the glaciers, for the snow under its own pressure quickly hardens into ice. Through twenty-eight valleys, self-carved in the solid rock, flow these rivers of ice, now turning, as rivers of water turn, to avoid the harder rock strata, now roaring over precipices like congealed water falls, now rippling, like water currents, over rough bottoms, pushing, pouring relentlessly on until they reach those parts of their courses where warmer air turns them into rivers of water.

There are forty-eight square miles of these glaciers.

Photograph by Curtis & Miller

SNOUT OF NISQUALLY GLACIER WHERE THE NISQUALLY RIVER BEGINS

Photograph by Curtis & Miller

CLOSE TO THE SUMMIT OF MOUNT RAINIER

Photograph by Curtis & Miller

LEAVING CAMP OF THE CLOUDS FOR THE SUMMIT

Nearly every day parties start for the long hard tramp up the glaciers to Columbia Crest. The climbers must dress warmly, paint their faces and hands to protect the skin from sunburn, and eat sparingly. Dark glasses must be worn. None but the hardy mountain climbers attempt this arduous tramp.

IN AN ARCTIC WONDERLAND

MOUNT RAINIER is nearly three miles high measured from sea level. It rises nearly two miles from its immediate base. Once it was a finished cone like the famous Fujiyama, the sacred mountain of Japan. Then it was probably 16,000 feet high. Indian legends tell of the great eruption.

In addition to the twenty-eight named glaciers there are others yet unnamed and little known. Few visitors have seen the wonderful north side, a photograph of which will be found on a later page. It possesses endless possibilities for development and easy grades to Columbia Crest, the wonderful snow-covered summit which is the second highest summit in the United States.

Many interesting things might be told of the glaciers were there space. For example, several species of minute insects live in the ice, hopping about like tiny fleas. They are harder to see than the so-called sand fleas at the seashore because much smaller. Slender, dark-brown worms live in countless millions in the surface ice. Microscopic rose-colored plants also thrive in such great numbers that they tint the surface here and there, making what is commonly called "red snow."

Photograph by Curtis & Miller

COASTING AT PARADISE VALLEY

GLACIER AND WILD FLOWER

PROBABLY no glacier of large size in the world is so quickly, easily, and comfortably reached as the most striking and celebrated, though by no means the largest, of Mount Rainier's, the Nisqually Glacier. It descends directly south from the snowy summit in a long curve, its lower finger reaching into parklike glades of luxuriant wild flowers. From Paradise Park one may step directly upon its fissured surface.

The Nisqually Glacier is five miles long and, at Paradise Park, is half a mile wide. Glistening white and fairly smooth at its shining source on the mountain's summit, its surface here is soiled with dust and broken stone and squeezed and rent by terrible pressure into fantastic shapes. Innumerable crevasses, or cracks many feet deep, break across it caused by the more rapid movement of the glacier's middle than its edges; for glaciers, like rivers of water, develop swifter currents nearer midstream.

Professor Le Conte tells us that the movement of Nisqually Glacier in summer averages, at midstream, about sixteen inches a day. It is far less at the margins, its speed being retarded by the friction of the sides.

Like all glaciers, the Nisqually gathers on its surface masses of rock with which it strews its sides just as rivers of water strew their banks with rocks and floating débris. These are called lateral moraines, or side moraines. Sometimes glaciers build lateral moraines miles long. The Nisqually ice is four hundred feet thick in places.

The rocks which are carried in midstream to the end of the glacier and dropped when the ice melts are called the terminal moraine.

The end, or snout, of the glacier thus always lies among a great mass of rocks and stones. The Nisqually River generally flows from a cave in the end of the Nisqually Glacier's snout. The river is dark brown when it first appears because it carries sediment and powdered rock which, however, it soon deposits, becoming clear.

But this brief picture of the Mount Rainier National Park would miss its loveliest touch without some notice of the wild-flower parks lying at the base, and often reaching far up between the icy fingers, of Mount Rainier.

"Above the forests," writes John Muir, the celebrated naturalist, "there is a zone of the loveliest flowers, fifty miles in circuit and nearly two miles wide, so closely planted and luxurious that it seems as if nature, glad to make an open space between woods so dense and ice so deep, were economizing the precious ground and trying to see how many of her darlings she can get together in one mountain wreath—daisies, anemones, columbine, erythroniums, larkspurs, etc., among which we wade knee-deep and waist-deep, the bright corollas in myriads touching petal to petal. Altogether this is the richest subalpine garden I have ever found, a perfect flower elysium."

Photograph by Curtis & Miller

MOUNT ADAMS FROM MOUNT RAINIER—FORTY MILES SOUTHWARD

Copyrighted, 1903, by W. P. Romans, Seattle

THE NORTH SLOPES OF MOUNT RAINIER ARE WELL ADAPTED TO BECOME THE HEALTH AND PLEASURE GARDENS OF MANY THOUSANDS

The superb north side has been seen by very few visitors owing to its inaccessibility, but the Department of the Interior is planning its development

Photograph by Curtis & Miller

BEAUTIFUL PARADISE VALLEY SHOWING THE TATOOSH RIDGE

Photograph by Curtis & Miller

TIMBER-LINE AND FLOWER FIELDS IN BEAUTIFUL PARADISE VALLEY

Photograph by Curtis & Miller

THE MORNINGS OFTEN ROLL TOSSING SEAS OF MIST INTO THE VALLEYS, FROM WHICH EMERGE AT INTERVALS CRAGGY TOPS, GLISTENING GLACIERS, AND FAR-DISTANT MOUNTAIN PEAKS

This photograph was taken from a height at Indian Henrys. Mount St. Helens is lost in the mists forty miles away

Photograph by Curtis & Miller

COMET FALLS

Photograph by Curtis & Miller

SLUISKIN FALLS

Photograph by A. H. Barnes

SNOW CUPS

Mowich Lake, a North-Side Gem of Beauty

Photograph by Curtis & Miller

The Roads Are Admirable

Photograph by Asahel Curtis

PARADISE INN, PARADISE VALLEY, FIFTEEN MINUTES' WALK FROM THE NISQUALLY GLACIER

Photograph by Curtis & Miller

THE ROADS LEAD TO THE GLACIERS THROUGH FORESTS OF FIR AND CEDAR

EASIEST GLACIERS TO SEE

THE Mount Rainier National Park is so accessible that one may get a brief close-by glimpse in one day. The new railroad slogan, "Four hours from Tacoma to the Glaciers," tells the story.

But no one unless under dire necessity should think of being so near one of the greatest spectacles in nature without sparing several days for a real look; several weeks is none too long. Thousands of Americans in normal years go to Switzerland to see glaciers much harder to reach and far less satisfactory to study.

An excellent road will carry the visitor by autostage from the railway terminus to the several comfortable hotels and camps, most of which are so located that the principal scenic points on the south side may be easily reached.

Pedestrians and horseback riders also follow trails through the gorgeous wild-flower parks, Paradise Valley, Indian Henrys Hunting Ground, Van Trump Park, Cowlitz Park, Ohanapecosh River and its hot springs, Summerland, Grand Park, Moraine Park, Elysian Fields, Spray Park, Natural Bridge, Cataract Basin, St. Andrews Park, Glacier Basin, and others; developing new points of view of wonderful glory.

Photograph by Curtis & Miller

NATIONAL PARK INN

CRATER LAKE NATIONAL PARK

Photograph by Fred H. Kiser, Portland, Oregon

LOOKING INTO ITS VAST DEPTHS IS LIKE LOOKING INTO THE LIMITLESS SKY

Photograph by U. S. Reclamation Service

THE PHANTOM SHIP—STRANDED ON A MAGIC SHORE

THE LAKE OF MYSTERY

CRATER LAKE is the deepest and the bluest fresh-water lake in the world. It measures two thousand feet of solid water, and the intensity of its color is unbelievable even while you look at it. Its cliffs from sky line to surface average over a thousand feet high. It has no visible inlet or outlet, for it occupies the hole left when, in the dim ages before man, a volcano collapsed and disappeared within itself.

It is a gem of wonderful color in a setting of pearly lavas relieved by patches of pine green and snow white—a gem which changes hue with every atmospheric change and every shift of light.

There are crater lakes in other lands; in Italy, for instance, in Germany, India, and Hawaii. The one lake of its kind in the United States is by far the finest of its kind in the world. It is one of the most distinguished spots in a land notable for the nobility and distinction of its scenery.

Crater Lake lies in southern Oregon. The volcano whose site it has usurped was one of a "noble band of fire mountains which, like beacons, once blazed along the Pacific Coast." Because of its unique character and quite extraordinary beauty it was made a national park in 1902.

Photograph by U. S. Reclamation Service

THE SUN PLAYS WONDERFUL TRICKS WITH LIGHTS AND SHADOWS

"THE SEA OF SILENCE"

NEARLY every visitor to Crater Lake, even the most prosaic, describes it as mysterious. To those who have not seen it, the adjective is difficult to analyze, but the fact remains.

The explanation may lie in Crater Lake's remarkable color scheme. The infinite range of grays, silvers, and pearls in the carved and fretted lava walls, the glinting white of occasional snow patches, the olives and pine greens of woods and mosses, the vivid, cloud-flecked azure of the sky, and the lake's thousand shades of blue, from the brilliant turquoise of its edges to the black blue of its depths of deepest shadow, strike into silence the least impressionable observers. "The Sea of Silence," Joaquin Miller calls Crater Lake.

With changing conditions of sun and air, this amazing spectacle changes key with the passing hours; and it is hard to say which is its most rapturous condition of beauty, that of cloudless sunshine or that of twilight shadow; or of what intermediate degree, or of storm or of shower or of moonlight or of starlight. At times the scene changes magically while you watch.

Photograph by U. S. Reclamation Service

PLAYING A THREE-POUND TROUT FROM THE ROCKY SHORE

Photograph by Fred H. Kiser, Portland, Oregon

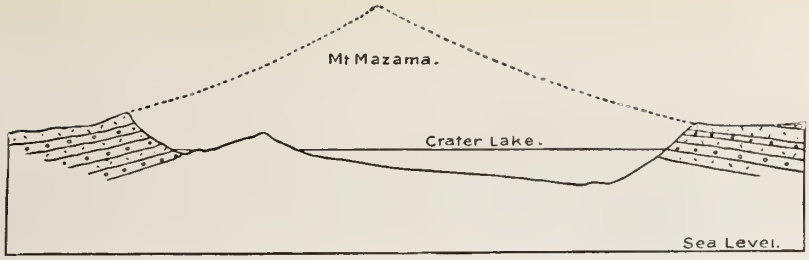
A Poem in Grays and Greens and Unbelievable Blues

Photograph by Fred H. Kiser, Portland, Oregon

CLIFFS OF A THOUSAND PEARLY HUES FANTASTICALLY CARVED

Photograph by U. S. Reclamation Service

VIEW FROM CRATER LAKE LODGE ACROSS THE END OF THE LAKE WESTWARD OF WIZARD ISLAND



STORY OF MOUNT MAZAMA

FEW of the astonishing pictures which geology has restored for us of this world in its making are so startling as that of Mount Mazama, which once reared a smoking peak many thousands of feet above the present peaceful level of Crater Lake. There were many noble volcanoes in the range: Mount Baker, Mount Rainier, Mount Adams, Mount St. Helens, Lassen Peak, Mount Mazama, Mount Hood, Mount Shasta. Once their vomitings built the great Cascade Mountains. To-day, cold and silent, they stand wrapped in shining armor of ice.

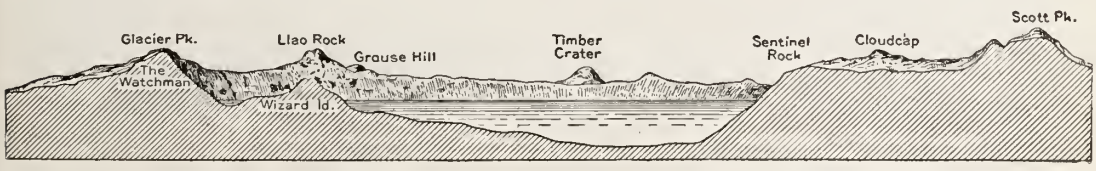
But not all. One is missing. Where Mount Mazama reared his noble head, there is nothing—until you climb the slopes once his foothills, and gaze spellbound over the broken lava cliffs into the lake which lies magically where once he stood. The story of the undoing of Mount Mazama, of the birth of this wonder lake, is one of the great stories of the earth.

Mount Mazama fell into itself. It is as if some vast cavern formed in the earth's seething interior into which the entire volcano suddenly slipped. The imagination of Doré might have reproduced some hint of the titanic spectacle of the disappearance of a mountain fifteen thousand feet in height.

When Mount Mazama collapsed into this vast hole, leaving clean cut the edges which to-day are Crater Lake's surrounding cliffs, there was instantly a surging back. The crumbling lavas were forced again up the huge chimney.

But not all the way. The vent became jammed. In three spots only did the fires emerge again. Three small volcanoes formed in the hollow.

But these in turn soon choked and cooled. During succeeding ages springs poured their waters into the vast cavity, and Crater Lake was born. Its rising waters covered two of the small volcanic cones. The third still emerges. It is called Wizard Island.



Photograph by Fred H. Kiser, Portland, Oregon

SUNSET

THE LEGEND OF LLAO

ACCORDING to the legend of the Klamath and Modoc Indians the mystic land of Gaywas was the home of the great god Llao. His throne in the infinite depths of the blue waters was surrounded by his warriors, giant crawfish able to lift great claws out of the water and seize too venturesome enemies on the cliff tops.

War broke out with Skell, the god of the neighboring Klamath Marshes. Skell was killed and his heart used for a ball by Llao's monsters. But an eagle, one of Skell's servants, captured it in flight, and escaped with it; and Skell's body grew again around his living heart. Once more he was powerful, and once more he waged war against the God of the Lake.

Then Llao was captured; but he was not so fortunate. Upon the highest cliff his body was torn into fragments and cast into the lake, and eaten by his own monsters under the belief that it was Skell's body. But when Llao's head was thrown in, the monsters recognized it, and would not eat it.

Llao's head still lies in the lake, and white men call it Wizard Island. And the cliff where Llao was torn to pieces is named Llao Rock.

Photograph by Fred H. Kiser, Portland, Oregon

OFTEN THE TREES ARE AS GNARLED AND KNOTTED AS THE CLIFFS THEY GROW ON

Photograph by U. S. Reclamation Service

Looking Down Into the Crater of Wizard Island

VIEWED FROM THE RIM

SEVERAL days may profitably be spent upon the rim of the lake, which one may travel afoot, on horseback or by automobile. The endless variety of lava formations and of color variation may be here studied to the best advantage.

The temperature of the water has been the subject of much investigation. The average observations of years show that, whatever may be the surface variations, the temperature of the water below a depth of three hundred feet continues approximately 39 degrees the year around. This disposes of the theory that the depths of the lake are affected by volcanic heat.

"Apart from its attractive scenic features," writes J. S. Diller of the United States Geological Survey, "Crater Lake affords one of the most interesting and instructive fields for the study of volcanic geology to be found anywhere in the world. Considered in all its aspects, it ranks with the Grand Canyon of the Colorado, the Yosemite Valley, and the Falls of Niagara, but with an individuality that is superlative."

Photograph by Fred H. Kiser, Portland, Oregon

SAND CREEK, SHOWING PINNACLES RESULTING FROM EROSION

Photograph by U. S. Reclamation Service

General View Across Crater Lake Near Sentinel Rock, Showing the Northern Shore Line, with Red Cone in the Middle Distance

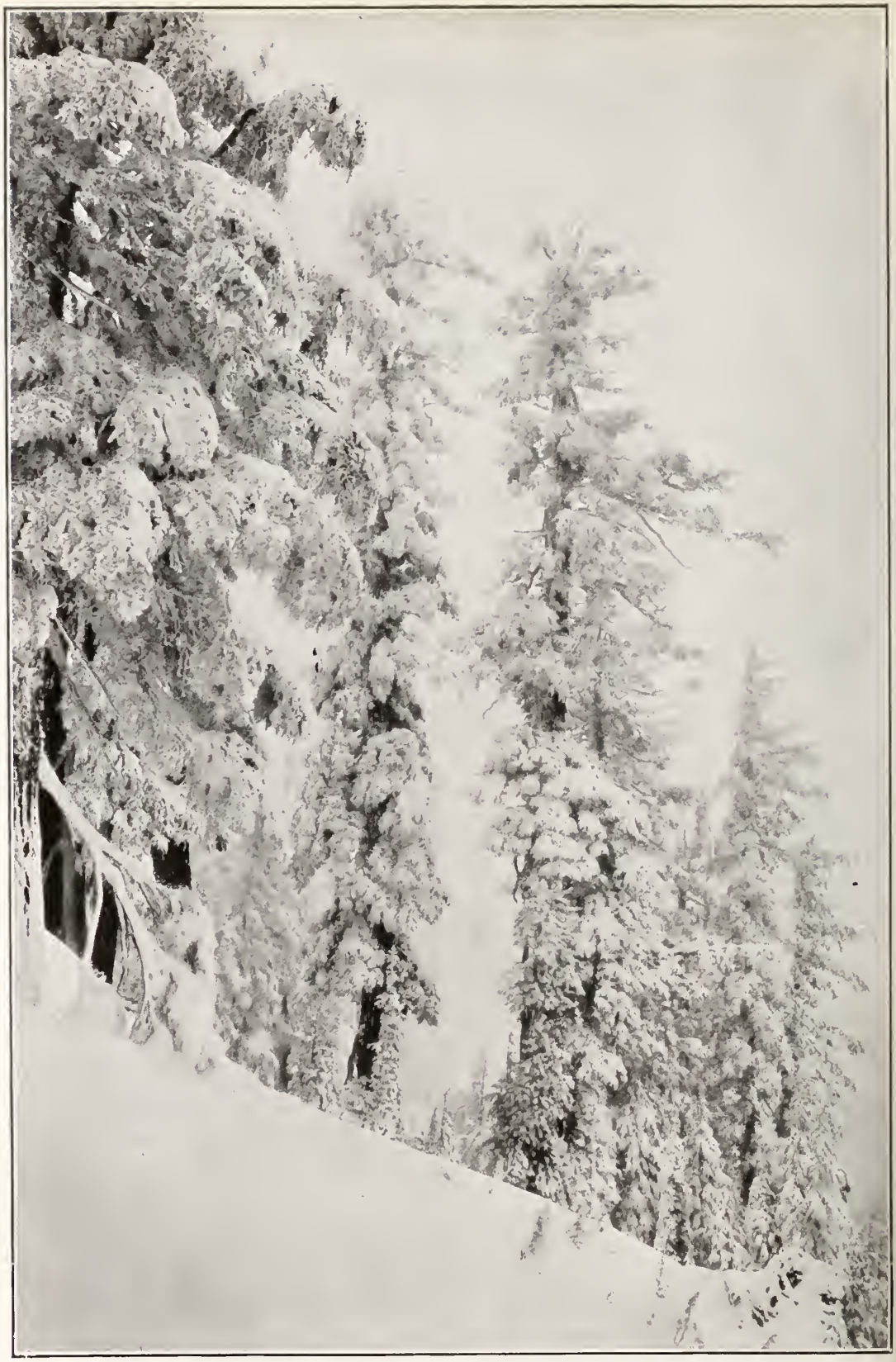
These cliffs vary from a thousand to twelve hundred feet high, occasionally rising to two thousand feet or more. The first effect of a view across the lake is to fill the observer with awe and a deep sense of mystery

Photograph by U. S. Reclamation Service

LLAO ROCK, NAMED AFTER THE GOD WHOM THE INDIANS BELIEVE LIVED NEAR THE LAKE'S MIGHTY DEPTHS

Photograph by U. S. Reclamation Service

CLOSER VIEW OF LLAO ROCK, WHICH, WITH THE PICTURE OPPOSITE, STRONGLY SUGGESTS CRATER LAKE'S ATMOSPHERE OF MYSTERY



Photograph by Fred H. Kiser

THE WINTER SNOWFALL IS EXTREMELY HEAVY

Photograph by National Park Service

THE MOISTURE-LADEN WINDS FROM THE PACIFIC DEPOSIT THEIR SNOW BURDEN UPON EVERYTHING

Photograph by National Park Service

THE WINTER CONTRAST BETWEEN THE SNOW BURDENED CLIFFS AND TREES AND THE DARK WATER IS VERY STRIKING

THE MINE OF BEAUTY

Photograph by Fred H. Kiser, Portland, Oregon

TROUT RUN FROM ONE TO SIX POUNDS

CRATER LAKE is seen in its glory from a launch. One may float for days upon its surface without sating one's sense of delighted surprise; for all is new again with every change of light. The Phantom Ship, for instance, sometimes wholly disappears. Now it is there, and a few minutes after, with new slants of light, it is gone—a phantom indeed. So it is with many headlands and ghostlike palisades.

This lake was not discovered until 1853. Eleven Californians had undertaken once more the search for the famous, perhaps fabulous, Lost Cabin Mine. For many years parties had been searching the Cascades; again they had come into the Rogue River region. With all their secrecy their object became known, and a party of Oregonians was hastily organized to stalk them and share their find. The Californians discovered the pursuit and divided their party. The Oregonians did the same. It became a game of hide-and-seek. When provisions were nearly exhausted all the parties joined forces.

"Suddenly we came in sight of water," writes J. W. Hillman, then the leader of the combined party; "we were much surprised, as we did not expect to see any lakes and did not know but that we had come in sight of and close to Klamath Lake. Not until my

Photograph by Fred H. Kiser, Portland, Oregon

THE FAVORITE WAY TO SEE THE SCULPTURED CLIFFS IS FROM A MOTOR BOAT

mule stopped within a few feet of the rim of Crater Lake did I look down, and if I had been riding a blind mule I firmly believe I would have ridden over the edge to death."

It is interesting that the discoverers quarreled on the choice of a name, dividing between Mysterious Lake and Deep Blue Lake. The advocates of Deep Blue Lake won the vote, but in 1869 a visiting party from Jacksonville renamed it Crater Lake, and this, by natural right, became its title.

HOTELS AND CAMPS

Partly because it is off the main line of travel, but chiefly because its unique attractions are not yet well known, Crater Lake has been seen by comparatively few. Under concession from the Department of the Interior, a comfortable camp is operated five miles from the lake and a newly completed hotel and camp on the lake's rim. Equipments for camping may be hired.

HARD FIGHTING TROUT

THIS magnificent body of cold fresh water originally contained no fish of any kind. A small crustacean was found in large numbers in its waters, the suggestion, no doubt, upon which was founded the Indian legend of the gigantic crawfish which formed the body-guard of the great god Llao.

In 1888 Will G. Steel brought trout fry from a ranch fifty miles away, but no fish were seen in the lake for more than a dozen years. Then a few were taken, one of which was fully thirty inches long.

Photograph by U. S. Reclamation Service

CAMPING OUT BACK OF THE RIM

Since then trout have been taken in ever-increasing numbers. They are best caught by fly casting from the shore. For this reason the fishing is not always the easiest. Often the slopes are not propitious for casting. One has to climb upon outlying rocks to reach the waters of best depth. But the results usually justify the effort. The trout range from one to ten pounds in weight. Anglers of experience in western fishing testify that, pound for pound, the rainbow trout taken in the cold deep waters of Crater Lake are the hardest-fighting trout of all.

Many fish are also taken from rowboats. A trolling spoon will often lure large fish.

Photograph by U. S. Reclamation Service

AT THE FOOT OF THE TRAIL FROM CRATER LAKE LODGE

Photograph by Fred H. Kiser, Portland, Oregon

ACROSS THE LAKE FROM THE RIM ROAD

CRATER LAKE LODGE ON THE RIM, 1,000 FEET ABOVE THE LAKE

The lounge occupies the entire ground floor of the center segment of the building, is 40 by 60 feet, without a pillar or post, and contains what is said to be the largest fireplace in the State of Oregon

THE MESA VERDE NATIONAL PARK

Photograph by G. M. Carr

GOVERNMENT ROAD TO THE CELEBRATED PREHISTORIC RUINS

Showing the woods which justify the title Mesa Verde (Green Table-land)

Photograph by F. C. Jeep

YESTERDAY AND TO-DAY

CITIES OF THE PAST

ONE December day in 1888 Richard and Alfred Wetherell, searching for lost cattle on the Mesa Verde near their home at Mancos, Colorado, pushed through dense growths on the edge of a deep canyon and shouted aloud in astonishment. Across the canyon, tucked into a shelf under the overhanging edge of the opposite brink, were the walls and towers of what seemed to them a palace. They named it Cliff Palace.

Forgetting the cattle in their excitement, they searched the edge of the mesa in all directions. Near by, under the overhanging edge of another canyon, they found a similar group, no less majestic, which they named Spruce Tree House because a large spruce grew out of the ruins.

Thus was discovered the most elaborate and best-preserved prehistoric ruins in America, if not in the world.

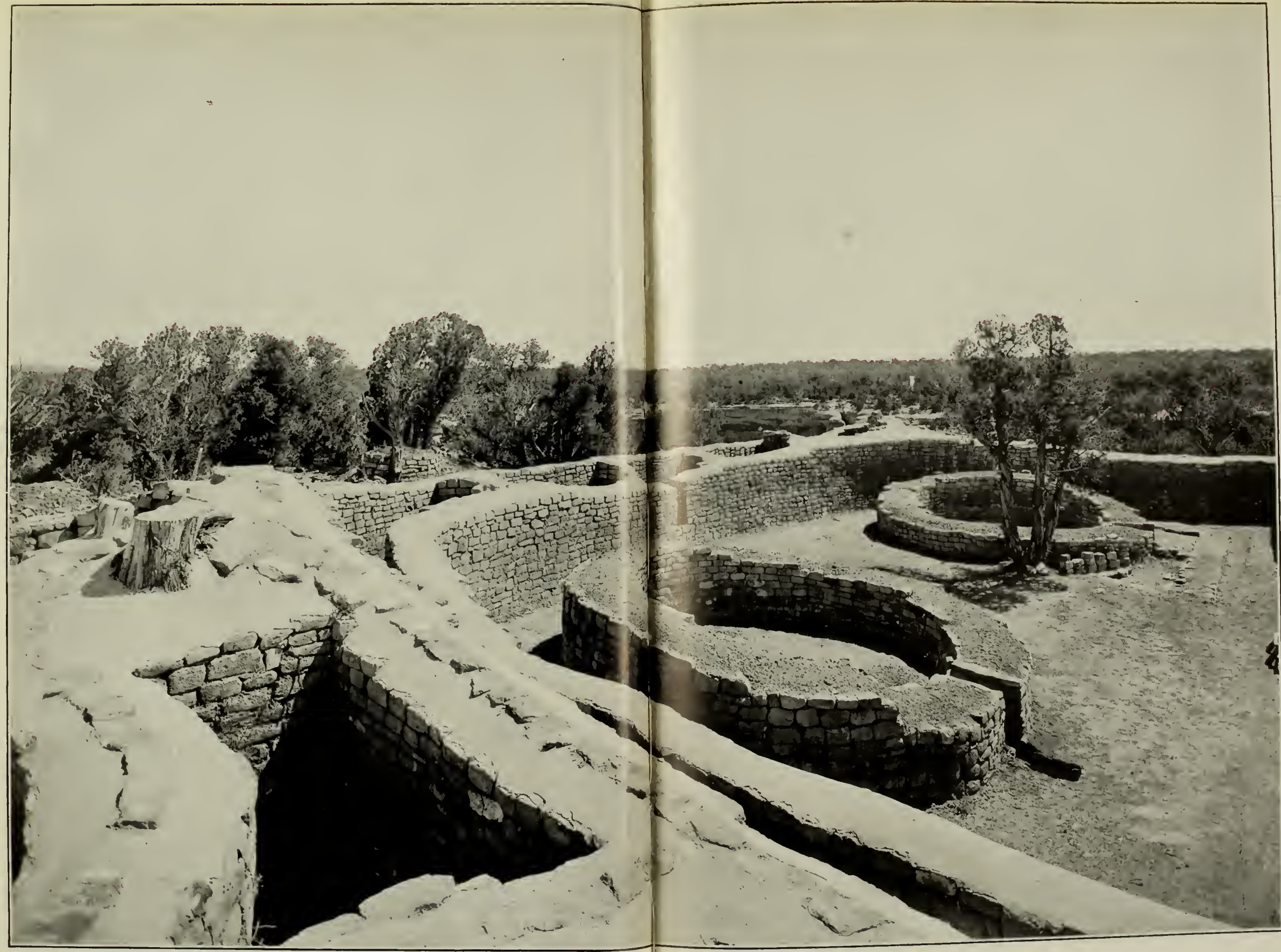
A careful search of the entire Mesa Verde in the years following has resulted in many other finds of interest and importance. In 1906 Congress set aside the region as a national park. Even yet its treasures of antiquity are not all known. A remarkable temple to the sun was unearthed in 1915.

Photograph by J. L. Nusbaum

THE MESA VERDE, OR GREEN MESA, IS SO CALLED BECAUSE COVERED WITH CEDAR AND PINYON TREES IN A LAND WHERE TREES ARE FEW

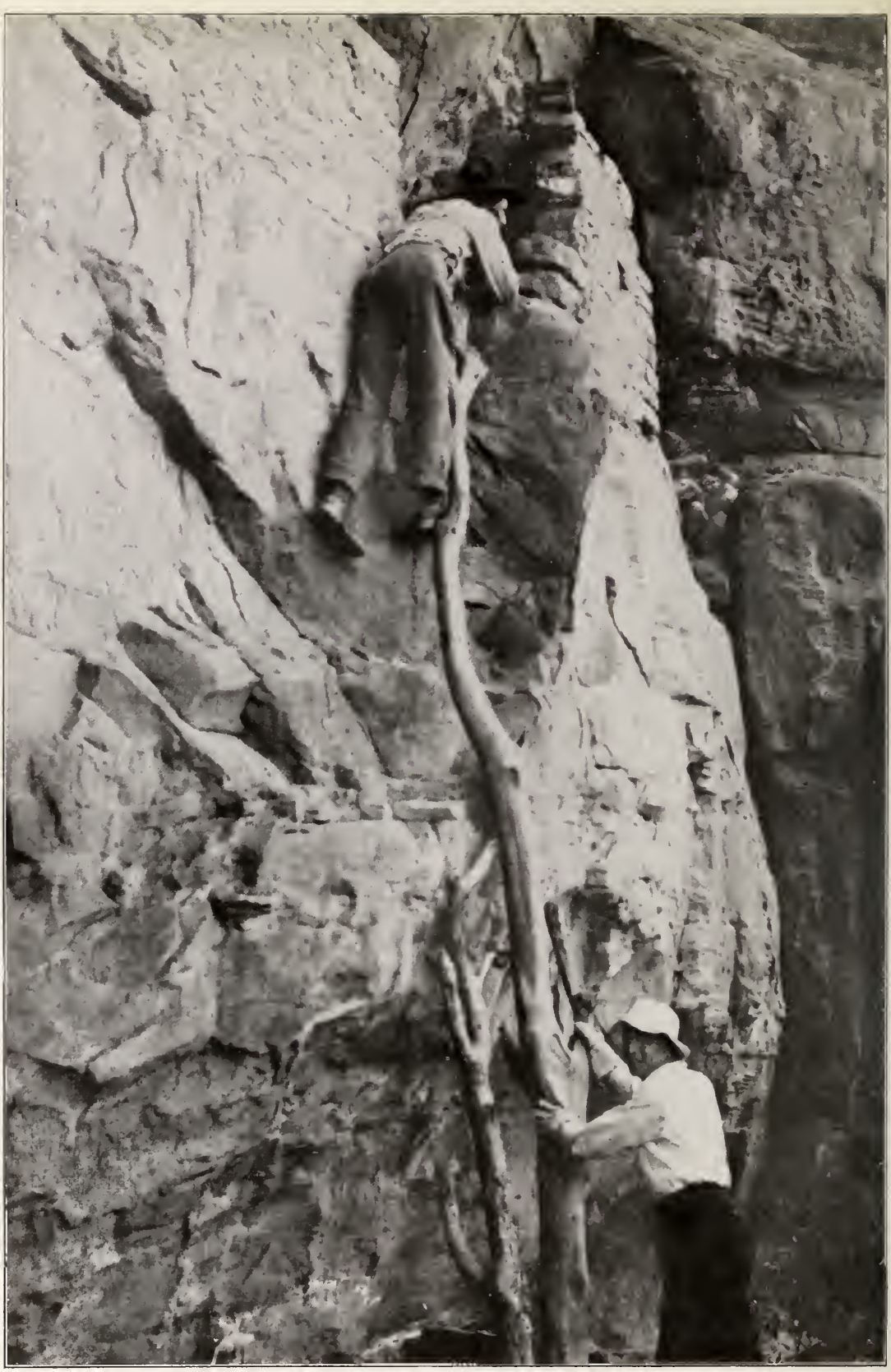
Photograph by J. L. Nusbaum

ABOVE THE BROKEN ROCKS, OR TALUS, RISE PRECIPITOUSLY THE CLIFFS UNDER WHOSE OVERHANG THE CLIFF DWELLINGS NESTLE



Photograph by Geo. L. Beam, Denver, Colo.

THE SUN TEMPLE, LOOKING NORTHEAST. SHOWING AT LEFT THE TRUNK OF CEDAR TREE WITH 360 RINGS WHICH WAS CUT DOWN DURING EXCAVATION



Photograph by D. W. Roper

THE EXPLORATION OF NEWLY DISCOVERED RUINS OFTEN REQUIRES MUCH HARD AND EVEN PERILOUS CLIMBING

Photograph by Mrs. C. R. Miller

MANY GATHERED NIGHTLY AROUND THE CAMP FIRE TO HEAR DR. FEWKES TELL THE STORY OF THE ANCIENT PEOPLE

THE STORY OF THE MESAS

THOSE who have traveled through our Southwestern States have seen from the car window innumerable mesas or isolated plateaus rising abruptly for hundreds of feet from the bare and often arid plains. The word mesa is Spanish for table.

Once the level of these mesa tops was the level of all of this vast Southwestern country, but the rains and floods of centuries have washed away the softer earths down to its present level, leaving standing only the rocky spots or those so covered with surface rocks that the rains could not reach the softer gravel underneath.

The Mesa Verde, or green mesa (because it is covered with stunted cedar and pinyon trees in a land where trees are few), is perhaps most widely known.

The Mesa Verde is one of the largest mesas. It is fifteen miles long and eight miles wide. At its foot are masses of broken rocks rising from three hundred to five hundred feet above the bare plains. Above these rise the cliffs.

The cliff dwellings nestle under its overhanging cliffs near the top.

IN THE CLIFF DWELLINGS

LIFE must have been difficult in this dry country when the Mesa Verde communities flourished in the sides of these sandstone cliffs. Game was scarce and hunting arduous. The Mancos River yielded a few fish. The earth contributed berries or nuts. Water was rare and found only in sequestered places near the heads of the canyons. Nevertheless, the inhabitants cultivated their farms and raised their corn, which they ground on flat stones called metates. They baked their bread on flat stone griddles. They boiled their meat in well-made vessels, some of which were artistically decorated.

Their life was difficult, but confidently did they believe that they were dependent upon the gods to make the rain fall and the corn grow. They were a religious people who worshipped the sun as the father of all and the earth as the mother who brought them all their material blessings. They possessed no written language and could only record their thoughts by a few symbols which they painted on their earthenware jars or scratched on the rocks.

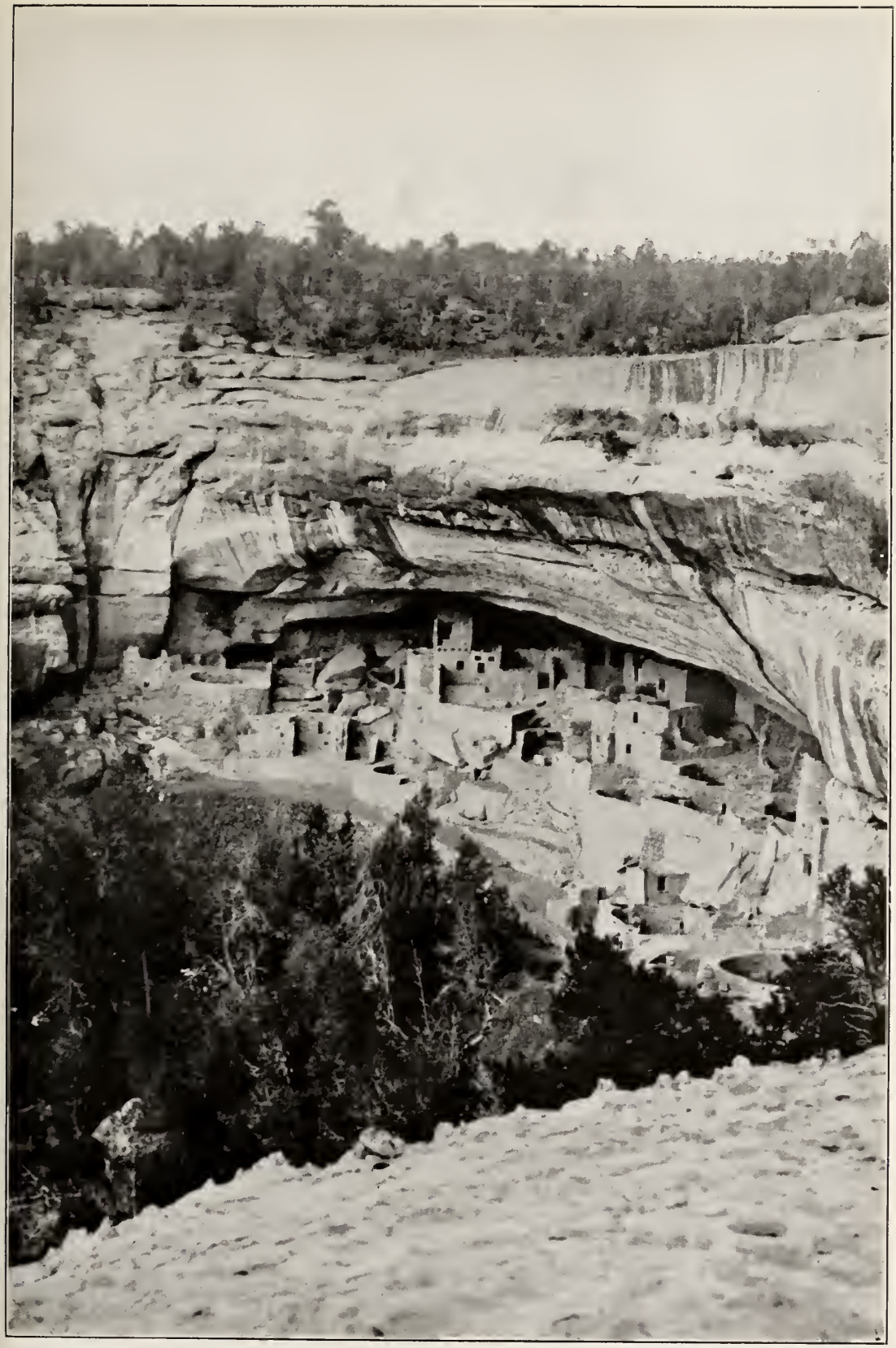
As their sense of beauty was keen, their art, though primitive, was true; rarely realistic, generally symbolic. Their decoration of cotton fabrics and ceramic work might be called beautiful, even when judged by the highly developed taste of to-day. They fashioned axes, spear points, and rude tools of stone; they wove sandals and made attractive basketry.

They were not content with rude buildings and had long outgrown the caves that satisfied less civilized Indians farther north and south of them.

The photographs of Cliff Palace on the following three pages will show not only the protection afforded by the overhanging cliffs but the general scheme of community living.

The population was composed of a series of units, possibly clans, each of which had its own social organization more or less distinct from the others. Each had ceremonial rooms, called kivas. Each also had living rooms and storerooms. There were twenty-three social units or clans in Cliff Palace.

The kivas were the rooms where the men spent most of the time devoted to ceremonies, councils, and other gatherings. The religious fraternities were limited to the men of a clan.



Cliff Palace Is the Most Celebrated of the Mesa Verde Ruins Because It Is The Largest and Most Prominent

Photograph by Geo. L. Beam, Denver, Colo.

LOOKING ACROSS CLIFF CANYON FROM CLIFF PALACE; SUN TEMPLE ON EXTREME RIGHT IN DISTANCE ON TOP OF CLIFF

Photograph by Arthur Chapman

THE SQUARE TOWER OF CLIFF PALACE

Photograph by Arthur Chapman

SPEAKER CHIEF'S HOUSE, CLIFF PALACE

Photograph by T. G. Lemmon

STONES FROM SUN TEMPLE COVERED WITH GEOMETRICAL AND EMBLEMATICAL DESIGNS

THE MESA'S LITTLE PEOPLE

INDIANS of to-day shun the ruins of the Mesa Verde. They believe them inhabited by spirits whom they call the Little People. It is vain to tell them that the Little People were their own ancestors; they refuse to believe it.

When the national park telephone line was building in 1915 the Indians were greatly excited. Coming to the Supervisor's office to trade, they shook their heads ominously.

The poles wouldn't stand up, they declared. Why? Because the Little People wouldn't like such an uncanny thing as a telephone.

But poles were standing, the Supervisor pointed out. All right, the Indians replied, but wait. The wires wouldn't talk. Little People wouldn't like it.

The poles were finally all in and the wires strung. What was more, the wires actually did talk and are still talking.

Never mind, say the Indians, with unshaken faith. Never mind. Wait. That's all. It will come. The Little People may stand it—for a while. But wait. The Supervisor is still waiting.

Photograph by F. C. Jeep

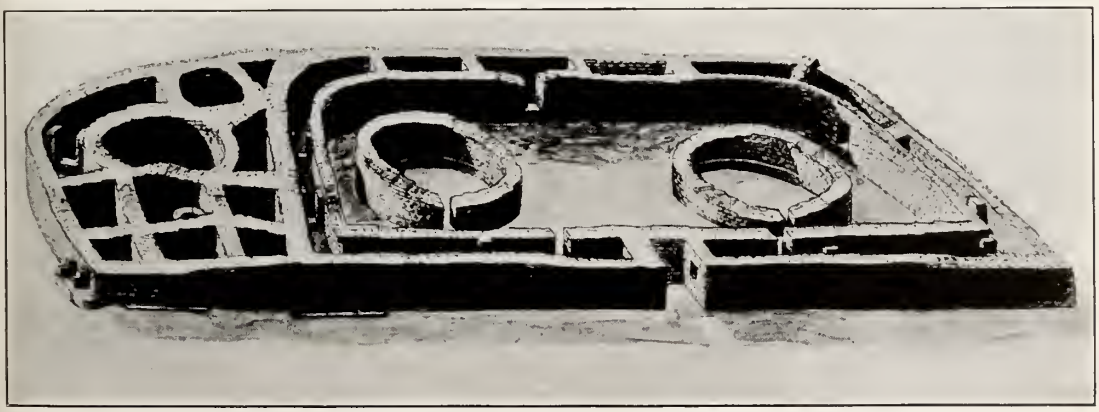
CONSTRUCTIVE DETAIL OF SOUTH WALL, SUN TEMPLE

DISCOVERY OF SUN TEMPLE

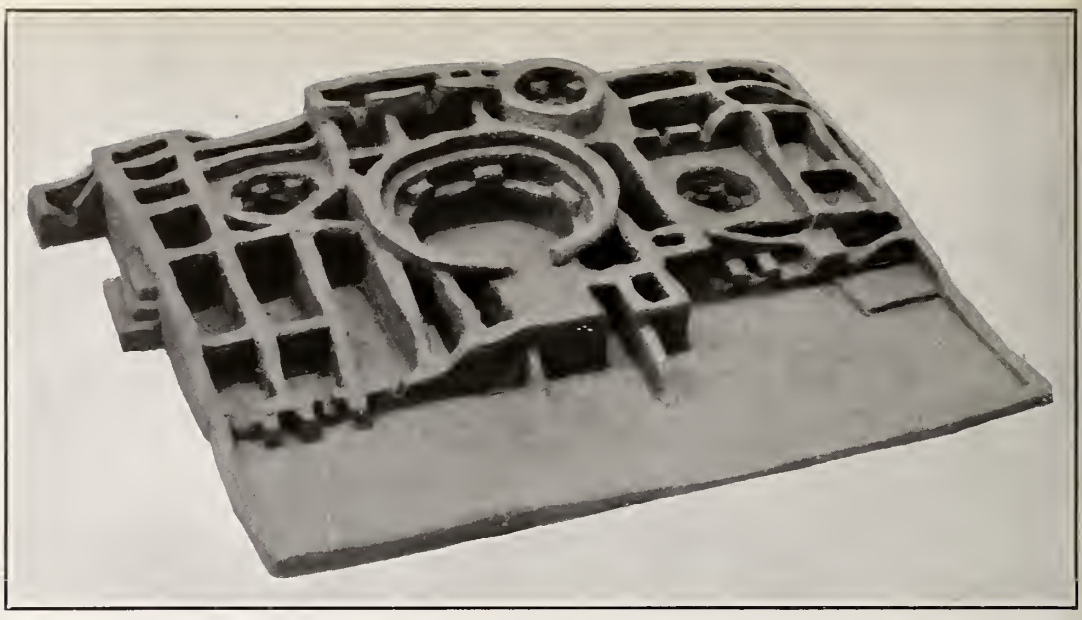
UNTIL the summer of 1915 no structures had been discovered in the Mesa Verde except those of the cliff-dwelling type. Then the Department of the Interior explored a mound on the top of the mesa opposite Cliff Palace and unearthed Sun Temple. Dr. J. Walter Fewkes, who conducted the exploration, believes that this was built about 1300 A. D. and marks the final stage in Mesa Verde development.

Sun Temple was a most important discovery. It marked a long advance toward civilization. It occupied a commanding position convenient to many large inhabited cliff dwellings. Its masonry showed growth in the art of construction. Its walls were embellished by geometrical figures carved in rock.

A fossil palm leaf, which the Cliff Dwellers supposed to be a divinely carved image of the sun, is embedded in the temple's walls.



DRAWING SHOWING CONSTRUCTIVE DETAIL OF SUN TEMPLE



Model of Far View House

Photograph by George L. Beam

Excavating Far View House on the Top of the Mesa

Spruce Tree House Hides Under a Huge Overhanging Cliff

THE PRINCIPAL DWELLINGS

CLIFF PALACE is the most celebrated of the Mesa Verde ruins because it is the largest and most prominent. Others are no less interesting and important. Spruce Tree House is next in size; Balcony House and Square Tower House are equally well preserved. There are many others; some of which have yet to be thoroughly explored; probably some still undiscovered.

Cliff Palace is three hundred feet long; Spruce Tree House two hundred and sixteen. Cliff Palace contained probably two hundred rooms; Spruce Tree House a hundred and fourteen. Spruce Tree House originally had three stories. Its population was probably three hundred and fifty.

The Round Tower in Cliff Palace is an object of unusual interest, but the ceremonial kivas, or religious rooms, in all the communities are usually round and often were entered from below.

A subterranean entrance to Cliff Palace was recently discovered.

Entrance to Lower Floors, Spruce Tree House

Photograph by Arthur Chapman

Spruce Tree House After Restoration by Dr. Fewkes

Photograph by Mrs. C. R. Miller

PHOTOGRAPHING ONE OF THE ROOMS AT BALCONY HOUSE

Photograph by John P. Dods

By Motor to Mesa Verde

Photograph by John P. Dods

A Modern Descendant

Photographs by J. L. Nusbaum

TYPICAL SKULLS OF PREHISTORIC MAN FOUND IN THE MESA VERDE

These skulls show an unusual breadth as compared with Indians of to-day, though of the same ethnological type. Nordenskiöld concludes that the race was fairly robust, with heavy skeletons and strong muscular processes. The facial bones are well developed and lower jaw heavy

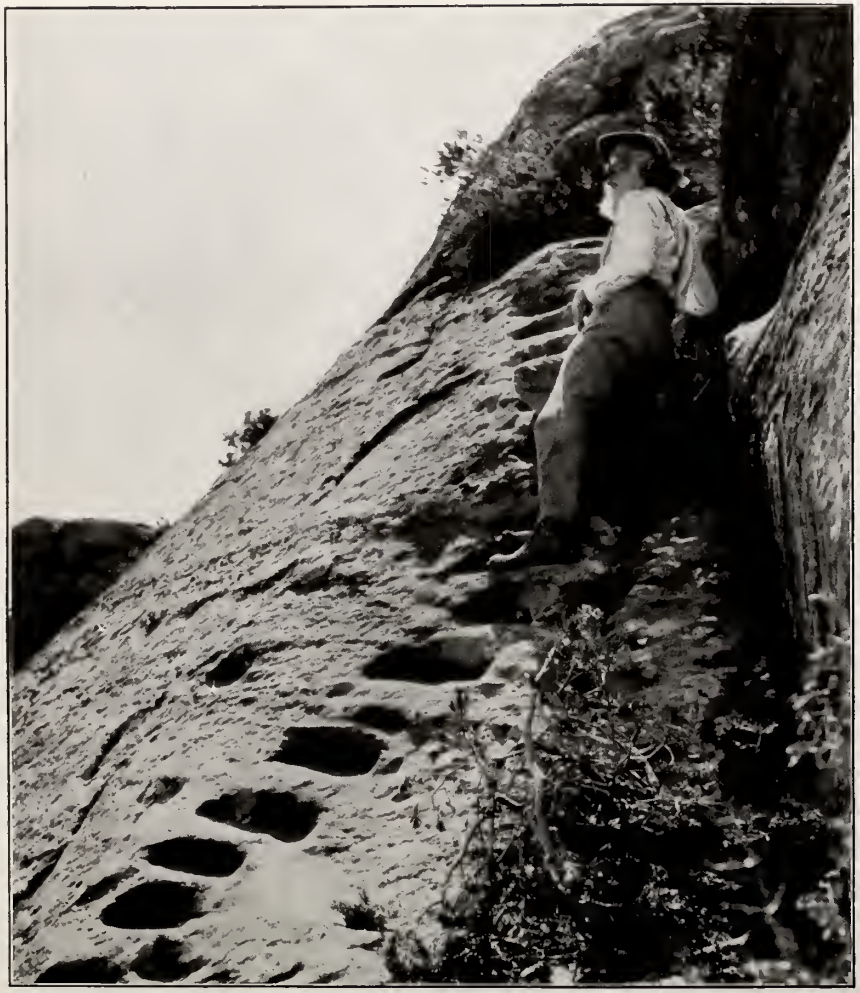
SUMMER UPON MESA VERDE

MESA VERDE NATIONAL PARK is in the extreme southwestern corner of Colorado and is reached by two routes from Denver. A night is usually spent en route, and the ruins are reached by wagon, horseback, or automobile from Mancos.

Apart from the ruins, the country is one of much beauty and interest. The highest spot on the mesa is Park Point, 8,515 feet in altitude. The mesa's northern edge is a fine bluff two thousand feet above the Montezuma Valley, whose irrigation lakes and brilliantly green fields are set off nobly against the distant Rico Mountains. To the west are the La Salle and Blue Mountains in Utah, with Ute Mountain in the immediate foreground.

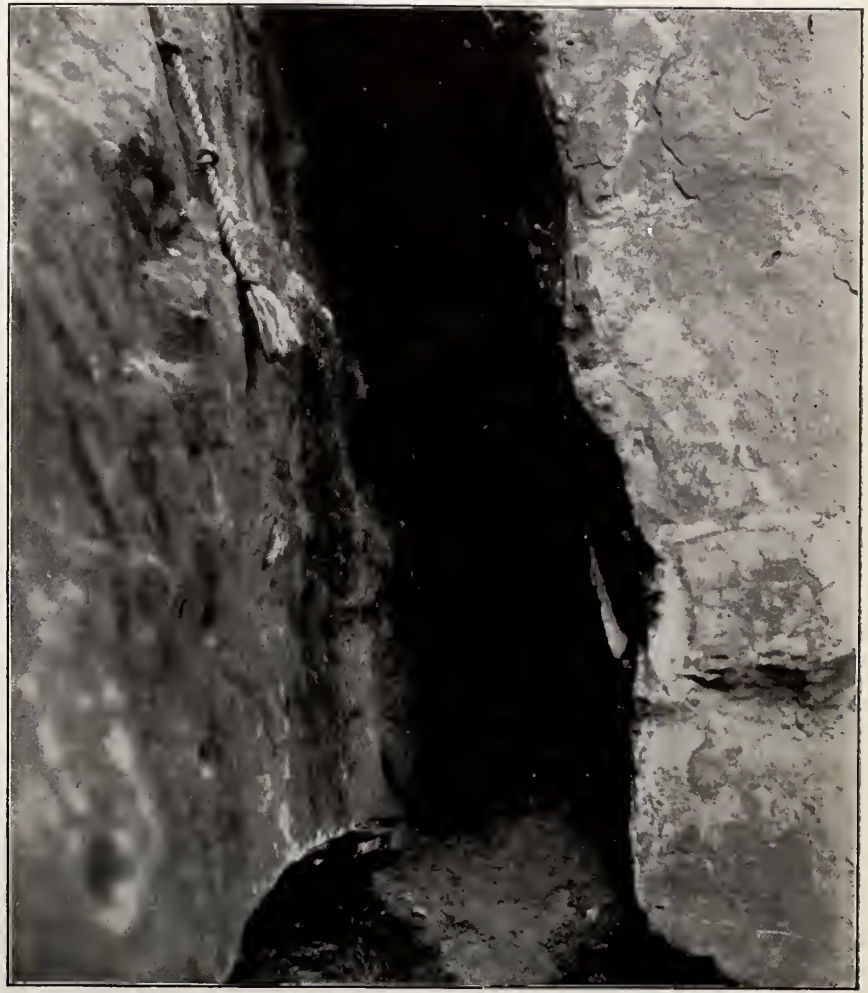
The views are inspiring, the entire country "different." In the spring the entire region blooms. It used to be a country of wild animals and at times deer are still plentiful. There is a fairly comfortable camp near Spruce Tree House.

An unusual attraction of the summer of 1915 was the unearthing of the great mound which covered Sun Temple. Dr. Fewkes maintained a camp near the mound and lectured almost nightly to those who gathered around his camp fire. The same informal custom will probably be resumed during succeeding summers while the exploration of other suggestive mounds is progressing.



Photograph by F. C. Jeep

The Trail to Balcony House



The Entrance to Balcony House

Photograph by Pen Dike Studio

BALCONY HOUSE IS ONE OF THE MOST INTERESTING AND BEST PRESERVED

THE INTERIOR OF A SACRED KIVA

Photograph by Mrs C. R. Miller

STONE CHAIRS FOUND AT THE CLIFF PALACE

GLACIER NATIONAL PARK

Photograph by A. J. Baker

MOUNT CLEVELAND, HIGHEST SUMMIT IN GLACIER

Photograph by National Park Service

GUNSIGHT PASS FROM SHORE OF GUNSIGHT LAKE

AN ALPINE PARADISE

NOTWITHSTANDING the sixty glaciers from which it derives its name, the Glacier National Park is chiefly remarkable for its picturesquely modeled peaks, the unique quality of its mountain masses, its gigantic precipices, and the romantic loveliness of its two hundred and fifty lakes.

Though most of our national parks possess similar general features in addition to those which sharply differentiate each from every other, the Glacier National Park shows them in special abundance and unusually happy combination. In fact, it is the quite extraordinary, almost sensational, massing of these scenic elements which gives it its marked individuality.

The broken and diversified character of this scenery, involving rugged mountain tops bounded by vertical walls sometimes more than four thousand feet high, glaciers perched upon lofty rocky shelves, unexpected waterfalls of peculiar charm, rivers of milky glacier water, lakes unexcelled for sheer beauty by the most celebrated of sunny Italy and snow-topped Switzerland, and grandly timbered slopes sweeping into valley bottoms, offer a continuous yet ever changing series of inspiring vistas not to be found in such luxuriance and perfection elsewhere.

Glacier National Park lies in western Montana, abutting the Canadian boundary. Waterton Lakes Park joins it on the Canadian side.

Photograph by Beatrix Barber

CRACKER LAKE AND SIYEH GLACIER

Photograph by Fred H. Kiser, Portland, Oregon

YOU SEEM MENACED BY GLACIERS AND WATERFALLS UPON EVERY SIDE

Avalanche Lake, fed from the Sperry Glacier above, lies in a cirque whose precipices rise thousands of feet

Photograph by National Park Service

PIEGAN MOUNTAIN NEAR PIEGAN PASS, FROM THE FLOWER GARDENS OF SIYEH BASIN

65163°—21——11

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Photograph by Fred H. Kiser, Portland, Oregon

FAMOUS GRINNELL LAKE WITH THE PICTURESQUE GRINNELL GLACIER ABOVE, WHENCE IT DERIVES ITS PARTLY MILKY GLACIAL WATERS

On the left is Gould Mountain. Grinnell Mountain, on the right, is one of the noblest in America. This region is a favorite haunt of Rocky Mountain goats

MAKING A NATIONAL PARK

HOW nature, just how many millions of years ago no man can estimate, made the Glacier National Park is a stirring story.

Once this whole region was covered with the prehistoric sea. The earthy sediments deposited by this water hardened into rocky strata. If you were in the park to-day you would see broad horizontal streaks of variously colored rock in the mountain masses thousands of feet above you. They are discernible in the photographs in this book. They are the very strata that the waters deposited in their depths in those far-away ages. How they got from the seas' bottoms to the mountains' tops is the story.

Photograph by Ellis Prentice Cole

ICEBERG LAKE WHERE FLOES DRIFT IN AUGUST

In the settling of the earth's masses into their present shape, mountain ranges have arisen from the sea by internal pressures. Just as the squeezed orange bulges in places, so this region was forced upward. Then it cracked and the western edge of the earth's skin was thrust far over the eastern edge.

The edge thus thrust over was many thousands of feet thick and disclosed all the geological strata which had been deposited at that time. In the many centuries of centuries since all these strata have been washed away except the bottom layer of the overthrust skin. The rock thus disclosed is at least eighty millions of years old. It is the same rock as the Grand Canyon. Glacier National Park is the Canadian Rockies done in Grand Canyon colors. Frost and rain and glaciers have marvelously carved it.

Photograph by A. S. Thirt

The Circular Wall on the Left Incloses Iceberg Lake. The Enormous Cirque on the Right, with Lake Helen Shown in the Lower Right Hand Corner, is the Source of the South Fork of the Belly River. The Photograph Remarkably Illustrates the Workmanship of Ancient Glaciers Throughout the Park

THE CARVING OF GLACIER

THE titanic overthrust which makes Glacier what it is was not accomplished all at once. The movement covered millions of years; change might even have been imperceptible in the life of one living there—though this was long before man. And during these same many millions of years frost and water and wind and glacier erosion were wiping off the upper strata and carving the ancient rocks that still remain into the thing of beauty that Glacier is to-day.

To picture this region, imagine a chain of very lofty mountains twisting about like a worm, spotted with snow fields and bearing glistening glaciers. Imagine them flanked everywhere by lesser peaks and tumbled mountain masses of smaller size in whose hollows lie the most beautiful lakes you have ever dreamed of.

Those who have seen the giant glaciers of Mount Rainier or the Alps will here see what glaciers of much greater size accomplished in ages past. Iceberg Lake, for example, is a mighty bowl shaped like a horseshoe, with sides more than two thousand feet high. A glacier hollowed it. Just north of it, the Belly Glacier hollowed another mammoth bowl of even greater depth; the wall dividing them is seen in the photograph on this page. Vast pits such as these were dug by prehistoric glaciers into both sides of the mountains. Often they nearly met, leaving precipitous walls. Sometimes they met; thus were created the passes.

Photograph by A. J. Baker

CIRQUE AT THE HEAD OF CUT BANK RIVER, SHOWING MOUNT MORGAN

Photograph by A. J. Baker

CUT BANK PASS—TRAIL LEADS UP APPARENTLY PERPENDICULAR WALL

ITS LAKES AND VALLEYS

Photograph by Fred H. Kiser, Portland, Oregon

THE supreme glory of the Glacier National Park is its lakes. The world has none to surpass, perhaps few to equal them. Some are valley gems grown to the water's edge with forests. Some are cradled among precipices. Some float ice fields in midsummer.

From the Continental Divide seven principal valleys drop precipitously upon the east, twelve sweep down the longer western slopes. Each valley holds between its feet its greater lake to which are tributary many smaller lakes of astonishing wildness.

On the east side St. Mary Lake is destined to world-wide celebrity, but so also is Lake McDonald on the west side. These are the largest in the park.

But some, perhaps many, of the smaller lakes are candidates for beauty's highest honors. Of these, Lake McDermott with its minaretted peaks stands first—perhaps because best known, for here is one of the finest hotels in any national park and a luxurious camp.

Upper Two Medicine Lake is another east-side candidate widely known because of its accessibility, while far to the north the Belly River Valley, difficult to reach and seldom seen, holds lakes, fed by eighteen glaciers, which will compare with Switzerland's noblest.

The west-side valleys north of McDonald constitute a little-known wilderness of the earth's choicest scenery, destined to future appreciation.

The Continental Divide is usually crossed by the famous Gunsight Pass Trail, which skirts giant precipices and develops sensational vistas in its serpentine course.

Photograph by U. S. Reclamation Service

BIRTH OF A CLOUD ON THE SIDE OF MOUNT ROCKWELL, TWO MEDICINE LAKE

Photograph by U. S. Reclamation Service

EARLY MORNING CLOUD EFFECTS AT TWO MEDICINE LAKE

Romantic Rising-Wolf Mountain is seen in middle distance

Photograph by Fred H. Kiser, Portland, Oregon

It Is the Romantic, Almost Sensational Massing of Extraordinary Scenic Elements Which Gives the Glacier National Park Its Marked Individuality

Beautiful St. Mary Lake with Going-to-the-Sun Camp in the foreground. Citadel Mountain in left center, Fusillade Mountain to the right

Photograph by U. S. Reclamation Service

INTERIOR OF MANY GLACIER HOTEL, LAKE MCDERMOTT

Photograph by L. D. Lindsley

THE END OF THE DAY

COMFORT AMONG GLACIERS

A SMALL but imposing aggregate of the scenery of the Glacier National Park is available to the comfort-loving traveler. There are two entrances, each with a railroad station. The visitor choosing the east entrance, at Glacier Park, will find autostages to Two Medicine Lake, St. Mary Lake, and Lake McDermott.

At the railway station and at Lake McDermott are elaborate modern hotels with every convenience. At Two Medicine Lake, at St. Mary and Upper St. Mary Lakes, at Cut Bank Creek, at Lake McDermott, at a superb point below the Sperry Glacier, and at Granite Park are chalets or camps, or both, where excellent accommodations may be had at modest charges.

The visitor choosing the west entrance, at Belton, will find camps and chalets there, and an autostage to beautiful Lake McDonald, at the upper end of which is a hotel of comfort and individuality, reached by boat. There is also boat service on Upper St. Mary Lake.

But if the enterprising traveler desires to know this wilderness wonderland in all its moods and phases, he must equip himself for the rough trail and the wayside camp. Thus he may devote weeks, months, summers to the benefiting of his health and the uplifting of his soul.

Photograph by L. D. Lindsley

THE MOUNTAINEERS ON TOUR—WASH DAY AT NYACK LAKE

Photograph by U. S. Reclamation Service

TO THE VICTOR BELONG THE SPOILS

Mary Roberts Rinehart lunching after a morning's trouting on Flathead River

Photograph by George V. Dauchy

BEAUTIFUL LAKE McDONALD, LOOKING NORTHEAST

Mount Cannon, cloud shrouded, is in the middle distance; Mount Brown on the right

Photograph by U. S. Reclamation Service

THE COMFORTABLE HOTEL NEAR THE HEAD OF LAKE McDONALD

Photograph by National Park Service

LAKE JANET AND PORCUPINE RIDGE

Photograph by National Park Service

GLENNS LAKE, PYRAMID PEAK, AND THE SHEPARD GLACIER

Photograph by U. S. Geological Survey

HEAD OF BEAUTIFUL BOWMAN LAKE

Photograph by U. S. Geological Survey

KINTLA GLACIER ON THE FLANK OF KINTLA PEAK

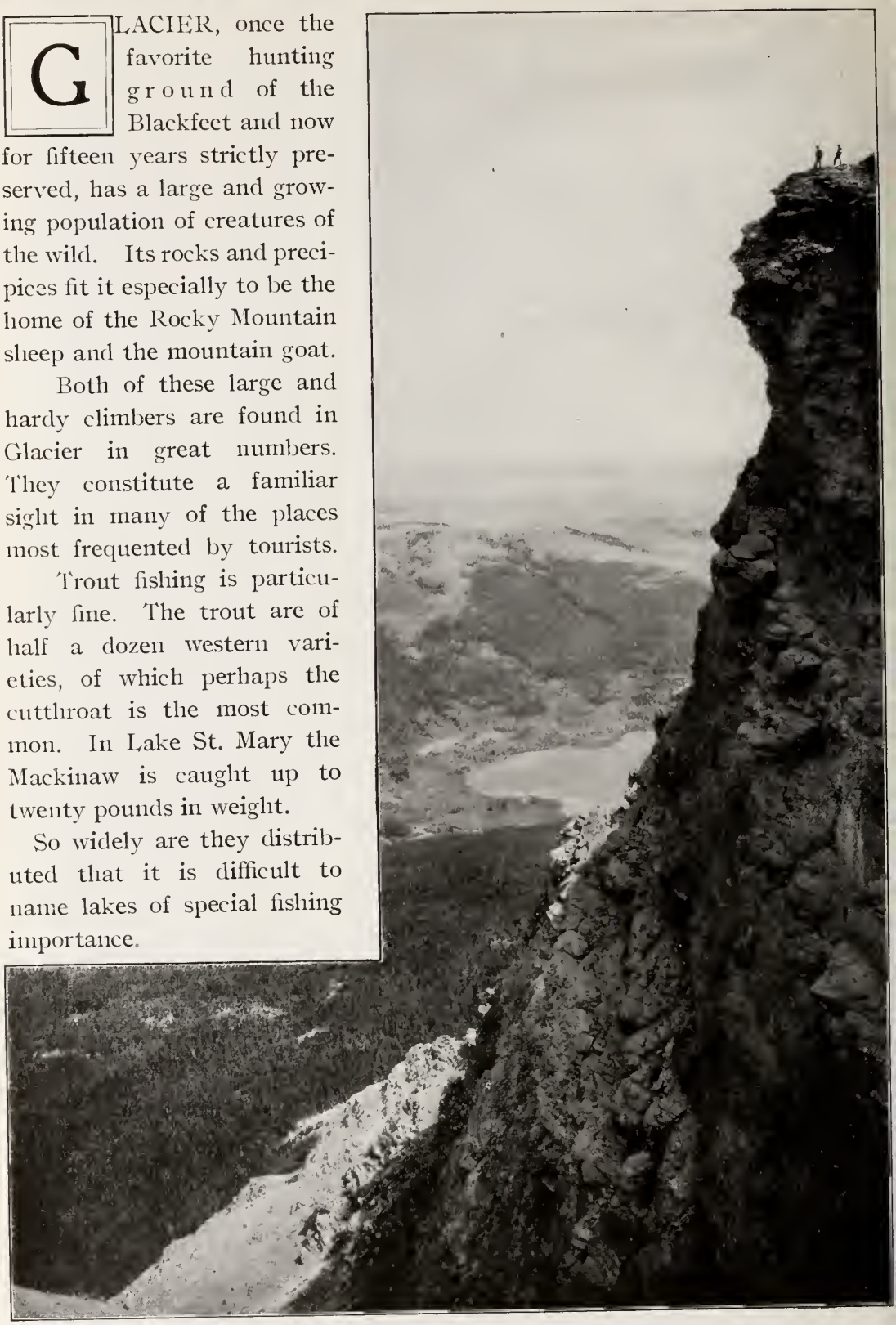
CREATURES OF THE WILD

GLACIER, once the favorite hunting ground of the Blackfeet and now for fifteen years strictly preserved, has a large and growing population of creatures of the wild. Its rocks and precipices fit it especially to be the home of the Rocky Mountain sheep and the mountain goat.

Both of these large and hardy climbers are found in Glacier in great numbers. They constitute a familiar sight in many of the places most frequented by tourists.

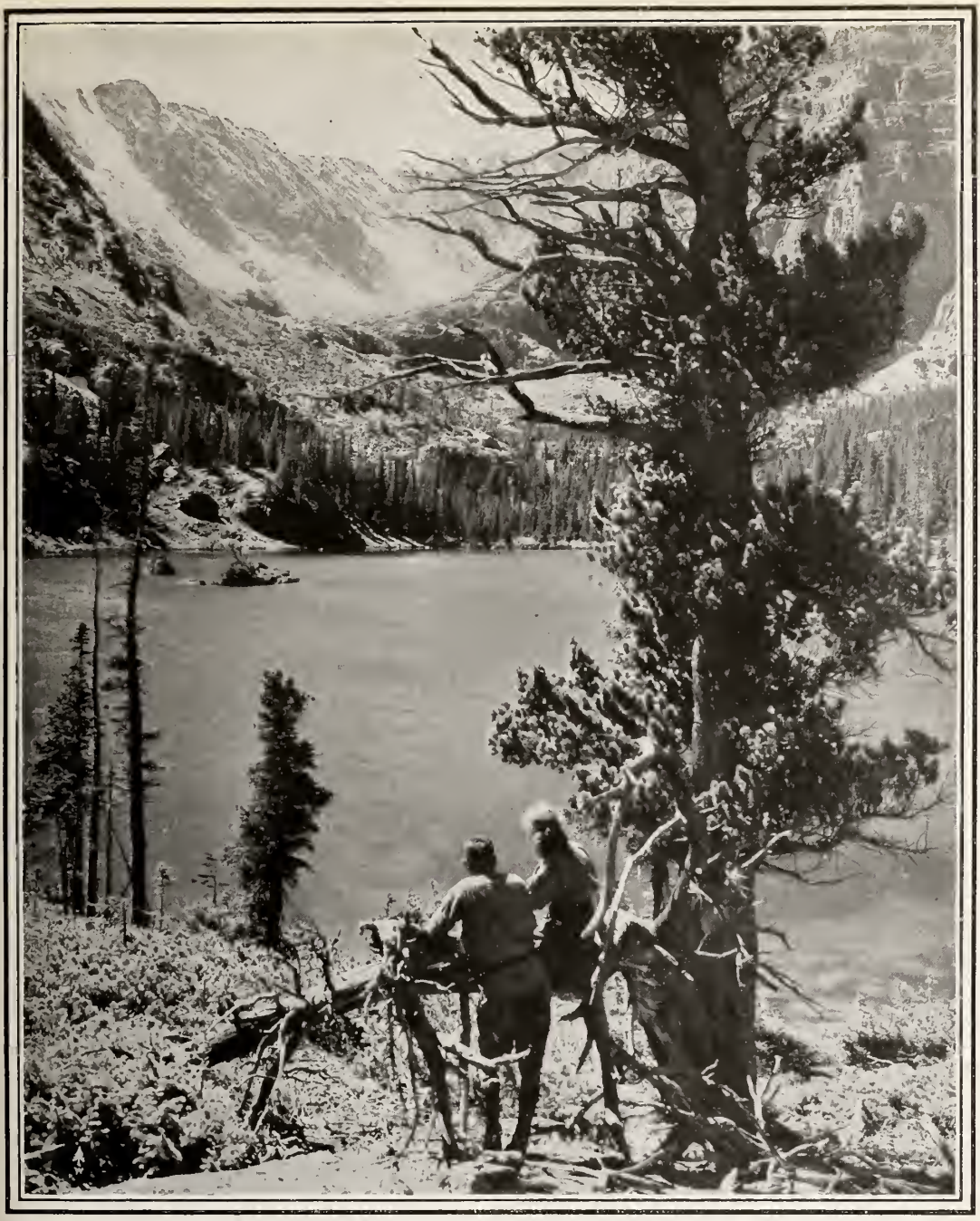
Trout fishing is particularly fine. The trout are of half a dozen western varieties, of which perhaps the cutthroat is the most common. In Lake St. Mary the Mackinaw is caught up to twenty pounds in weight.

So widely are they distributed that it is difficult to name lakes of special fishing importance.



Photograph by Fred H. Kiser, Portland, Oregon

SUMMIT OF APPISTOKI MOUNTAIN



THE ROCKY MOUNTAIN NATIONAL PARK

Copyright by Wiswall Brothers, Denver

SEEN FROM THE EAST, THIS RANGE RISES IN DARING RELIEF, CRAGGY IN OUTLINE, SNOW-CLAD, AWE-INSPIRING

This photograph is from the village of Estes Park and exhibits summits lying to the north of Longs Peak

Photograph by U. S. Reclamation Service

Fall River Entrance to the Rocky Mountain National Park

"TOP OF THE WORLD"

FOR many years the Mecca of eastern mountain lovers has been the Rockies. For many years the name has summed European ideas of American mountain grandeur. Yet it was not until 1915 that a particular section of the enormous area of magnificent and diversified scenic range thus designated was chosen as the representative of the noblest qualities of the whole. This is the Rocky Mountain National Park.

And it is splendidly representative. In nobility, in calm dignity, in the sheer glory of stalwart beauty, there is no mountain group to excel the company of snow-capped veterans of all the ages which stands at everlasting parade behind its grim, helmeted captain, Longs Peak.

There is probably no other scenic neighborhood of the first order which combines mountain outlines so bold with a quality of beauty so intimate and refined. Just to live in the valleys in the eloquent and ever-changing presence of these carved and tinted peaks is itself satisfaction. But to climb into their embrace, to know them in the intimacy of their bare summits and their flowered, glaciated gorges, is to turn a new and unforgettable page in experience.

The park straddles the Continental Divide at a point of supreme magnificence. Its eastern gateway is beautiful Estes Park, a valley village of many hotels from which access up to the most noble heights and into the most picturesque recesses of the Rockies is easy and comfortable. Its western entrance is Grand Lake.

Photograph by Agnes W. Vaille

LONGS PEAK, FROM A SMALL LAKE AT THE ENTRANCE TO GLACIER GORGE, SHOWING ITS PRECIPITOUS WESTERN SIDE

THE KING AND HIS KINGDOM

THE Snowy Range lies, roughly speaking, north and south. From valleys 8,000 feet high, the peaks rise to 12,000 and 14,000 feet. Longs Peak measures 14,255 feet.

The gentler slopes are on the west, a region of loveliness, heavily wooded, diversified by gloriously modeled mountain masses, and watered by many streams and rock-bound lakes. The western entrance, Grand Lake, is a thriving center of hotel and cottage life.

On the east side the descent from the Continental Divide is steep in the extreme. Precipices two or three thousand feet plunging into gorges carpeted with snow patches and wild flowers are common. Seen from the east-side villages, this range rises in daring relief, craggy in outline, snow-spattered, awe-inspiring.

Midway of the range and standing boldly forward from its western side, Longs Peak rears his lofty, square-crowned head. A veritable King of Mountains—stalwart, majestic.

Amazingly diversified is this favored region.

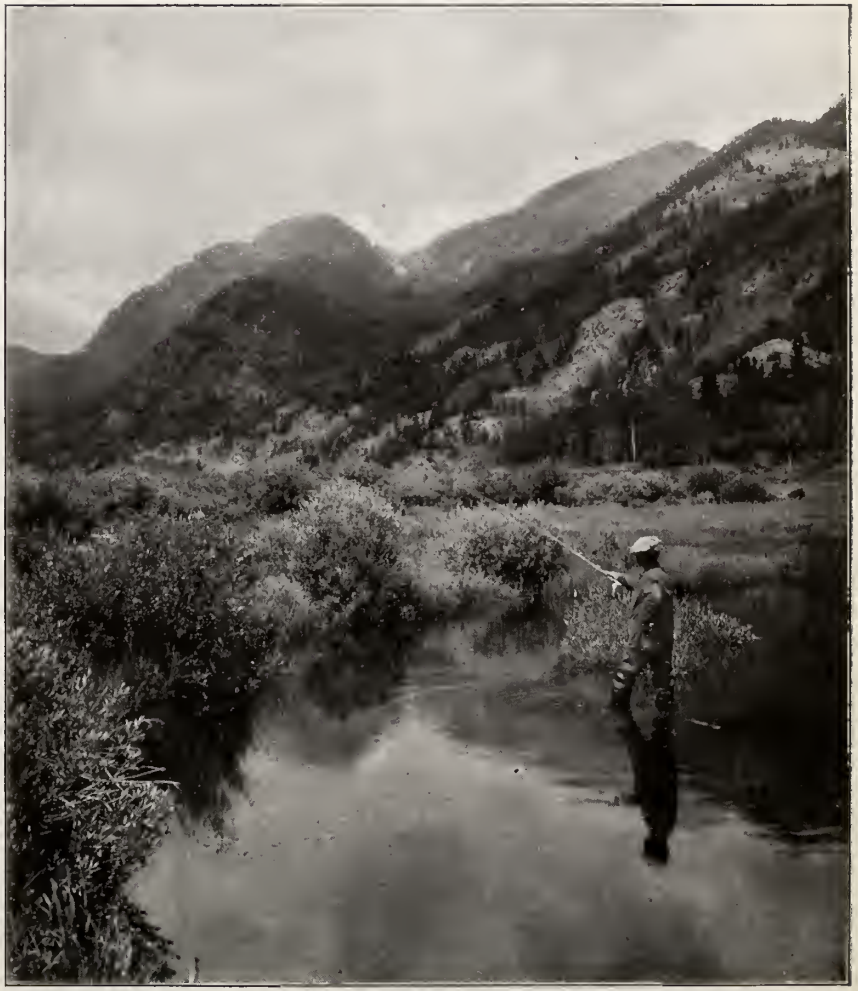
The valleys are checkered with broad, flowery opens and luxuriant groves of white-stemmed aspens and dark-leaved pines. Singing rivers and shining lakes abound. Frost-sculptured granite cliffs assume picturesque shapes. Always some group of peaks has caught and held the wandering clouds.

Very different are the mountain vistas. From the heights stretches on every hand a tumbled sea of peaks. Dark gorges open underfoot. Massive granite walls torn from their fastenings in some unimaginable upheaval in ages before man impose their gray faces. Far in the distance lie patches of molten silver which are lakes, and threads of silver which are rivers, and mists which conceal far-off valleys. On sunny days lies to the east a dim sea which is the Great Plain.

Photograph by Enos Mills

MOUNT COPELAND

Looking into the Park from the Twin Sisters



Late Afternoon Yields Good Catches

Photograph by U. S. Reclamation Service

To Know Them in the Intimacy of Their Bare Summits Is to Turn an Unforgettable Page in the Book of Experience

Looking from Flattop across the Tyndall Glacier Gorge to the windy summit of Hallett Peak

Photograph by J. Burns

ICE FLOES BREAKING FROM THE HALLETT GLACIER

Photograph by U. S. Reclamation Service

ICEBERG LAKE LIES 2,000 FEET BELOW TRAIL RIDGE

Photograph by Willis T. Lee

THE ANDREWS GLACIER, LARGEST IN ROCKY MOUNTAIN NATIONAL PARK

Photograph by Enos Mills

RECORDS OF THE GLACIERS

Photograph by U. S. Reclamation Service

MOONLIGHT ON GRAND LAKE

A FEATURE of this region is the readability of its records of glacial action during the ages when America was making. In few other spots do these evidences, in all their variety, make themselves so prominent to the casual eye.

There is scarcely any part of the eastern side where some enormous moraine does not force itself upon passing attention. One of the valley villages, Moraine Park, is so named from a moraine built out for miles across the valley's floor by ancient parallel glaciers.

Scarcely less prominent is the long curving hill called the Mills Moraine, after Enos Mills, the naturalist, who is known in Colorado as "the father of the Rocky Mountain National Park."

In short, this park is itself a primer of glacial geology whose simple, self-evident lessons immediately disclose the key to one of nature's cliefest scenic secrets.

Photograph by Willis T. Lee

LONGS PEAK FROM BOULDER FIELD

At the extreme right is seen the "Keyhole" through which the summit is reached

Photograph by Willis T. Lee

FULL COURSE OF THE MILLS MORAINE

The mighty glacier that heaped it a thousand feet high was born at the foot of Longs Peak precipice. The moraine is four miles long

Photograph by John King Sherman

THE CHISELED WESTERN WALL OF LOCH VALE

PRECIPICE-WALLED GORGES

Photograph by John King Sherman

CHASM LAKE AND LONGS PEAK

A DISTINGUISHED feature of the park is its profusion of cliff-cradled, glacier-watered valleys unexcelled for wildness and the glory of their flowers. Here grandeur and romantic beauty compete.

These valleys lie in two groups, one north, the other south of Longs Peak, in the angles of the main range; the northern group called the Wild Garden, the southern group called the Wild Basin.

There are few spots, for instance, so impressively beautiful as Loch Vale, with its three shelved lakes lying two thousand feet sheer below Taylors Peak. Adjoining is Glacier Gorge at the foot of the precipitous north slope of Longs Peak, holding in rocky embrace its own group of three lakelets.

The Wild Basin, with its wealth of lake and precipice, still remains unexploited and known to few.

Few Mountain Gorges Are So Impressively Beautiful as Loch Vale

Photograph by George H. Harvey

GRAND LAKE FROM THE CONTINENTAL DIVIDE

Photograph by U. S. Reclamation Service

CACHE LA POUDRE VALLEY AT FOOT OF SPECIMEN MOUNTAIN

Photograph by Wiswall Brothers

SKY POND AND TAYLOR PEAK, WILD GARDENS

Photograph by Enos Mills

"The End of the Trail"

Photograph by George C. Barnard, Denver

An Ideal Country for Winter Sports

Photograph by Wiswall Brothers

BLUEBIRD LAKE, WILD BASIN

Photograph by U. S. Reclamation Service

ODESSA LAKE IS ALMOST ENCIRCLED BY SNOW-SPATTERED SUMMITS

Photograph by U. S. Reclamation Service

SPRUCE-GIRDLED FERN LAKE, SHOWING LITTLE MATTERHORN IN MIDDLE DISTANCE

METROPOLIS *of* BEAVERLAND

Copyright by Wiswall Brothers, Denver

AN ASPEN THICKET TRAIL IS A PATH OF DELIGHT

THE visitor will not forget the aspens in the Rocky Mountain National Park. Their white trunks and branches and their luxuriant bright green foliage are never out of sight. A trail through an aspen thicket is a path of delight.

Because of the unusual aspen growths, the region is the favored home of beavers, who make the tender bark their principal food. Beaver dams block countless streams and beaver houses emerge from the still ponds above. In some retired spots the engineering feats of generations of beaver families may be traced in all their considerable range.

Nowhere is the picturesqueness of timber line more quickly and more easily seen. A horse after early breakfast, a steep mountain trail, an hour of unique enjoyment, and one may be back for late luncheon.

Eleven thousand feet up, the winter struggles between trees and icy gales are grotesquely exhibited.

The first sight of luxuriant Engelmann spruces creeping closely upon the ground instead of rising a hundred and fifty feet straight and true as masts is not soon forgotten. Many stems strong enough to partly defy the winters' gales grow bent in half circles. Others, starting straight in shelter of some large rock, bend at right angles where they emerge above it. Many succeed in lifting their trunks but not in growing branches except in their lee, thus suggesting great evergreen dust brushes.

Photograph by Enos Mills

BEAVER DAMS BLOCK COUNTLESS STREAMS

Photograph by Enos Mills

WIND-TWISTED TREES AT TIMBER-LINE

MIDWAY OF THE RANGE, LONGS PEAK REARS HIS STATELY, SQUARE-CROWNED HEAD; A VERITABLE KING OF MOUNTAINS CALMLY OVERLOOKING ALL HIS REALM

This is the very heart of the Rockies; few photographs so fully express the spirit of the Snowy Range

Photograph by U. S. Reclamation Service

The Stanley Hotel and Manor

EASY TO REACH AND TO SEE

THE accessibility of the Rocky Mountain National Park is apparent by a glance at any map. Denver is less than thirty hours from St. Louis and Chicago, two days only from New York. Four hours from Denver will put you in Estes Park.

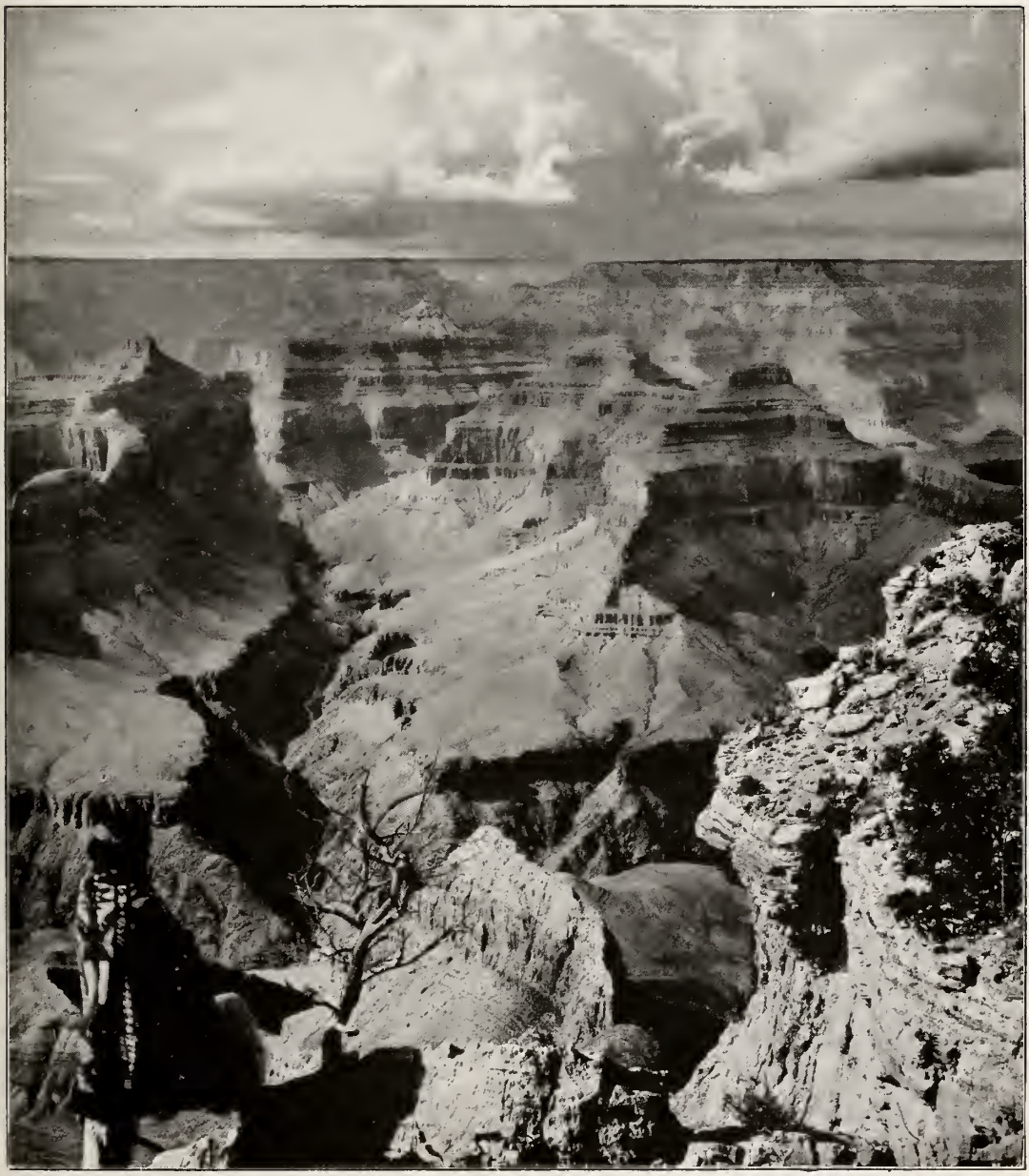
Once there, comfortable in one of its many hotels of varying range of tariff, and the summits and the gorges of this mountain-top paradise resolve themselves into a choice between foot and horseback.

There are also a few most comfortable houses and several somewhat primitive camps within the park's boundaries at the very foot of its noblest scenery.

Longs Peak Inn; Altitude 9,000 Feet

Longs Peak (14,255 feet) in the center of the triple mountain group, flanked by Mount Meeker on the left and Mount Lady Washington on the right; across their front is the Mills Moraine

THE GRAND CANYON NATIONAL PARK



"By Far the Most Sublime of All Earthly Spectacles."—Charles Dudley Warner

Photograph by George R. King

"It Is Beyond Comparison—Beyond Description; Absolutely Unparalleled Throughout the Wide World"—Theodore Roosevelt

Photograph by U. S. Reclamation Service

Leaving El Tovar for a Scenic Rim Drive

COLOSSUS OF CANYONS

"MORE mysterious in its depth than the Himalayas in their height," writes Professor John C. Van Dyke, "the Grand Canyon remains not the eighth but the first wonder of the world. There is nothing like it."

Even the most superficial description of this enormous spectacle may not be put in words. The wanderer upon the rim overlooks a thousand square miles of pyramids and minarets carved from the painted depths. Many miles away and more than a mile below the level of his feet he sees a tiny silver thread which he knows is the giant Colorado.

He is numbed by the spectacle. At first he can not comprehend it. There is no measure, nothing which the eye can grasp, the mind fathom.

It may be hours before he can even slightly adjust himself to the titanic spectacle, before it ceases to be utter chaos; and not until then does he begin to exclaim in rapture.

And he never wholly adjusts himself, for with dawning appreciation comes growing wonder. Comprehension lies always just beyond his reach.

The Colorado River is formed by the confluence of the Grand and the Green Rivers. Together they gather the waters of three hundred thousand square miles. Their many canyons reach this magnificent climax in northern Arizona. The Grand Canyon became a national park in February, 1919.

Copyright by Fred Harvey

"A Pageant of Ghastly Desolation and Yet of Frightful Vitality, Such as Neither Dante Nor Milton in Their Most Sublime Conceptions Ever Even Approached."—William Winter

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"A Gigantic Statement for Even Nature to Make All in One Mighty Stone Word. Wildness So Godful, Cosmic, Primeval, Bestows a New Sense of Earth's Beauty and Size."—John Muir

Photograph by Henry Fuermann

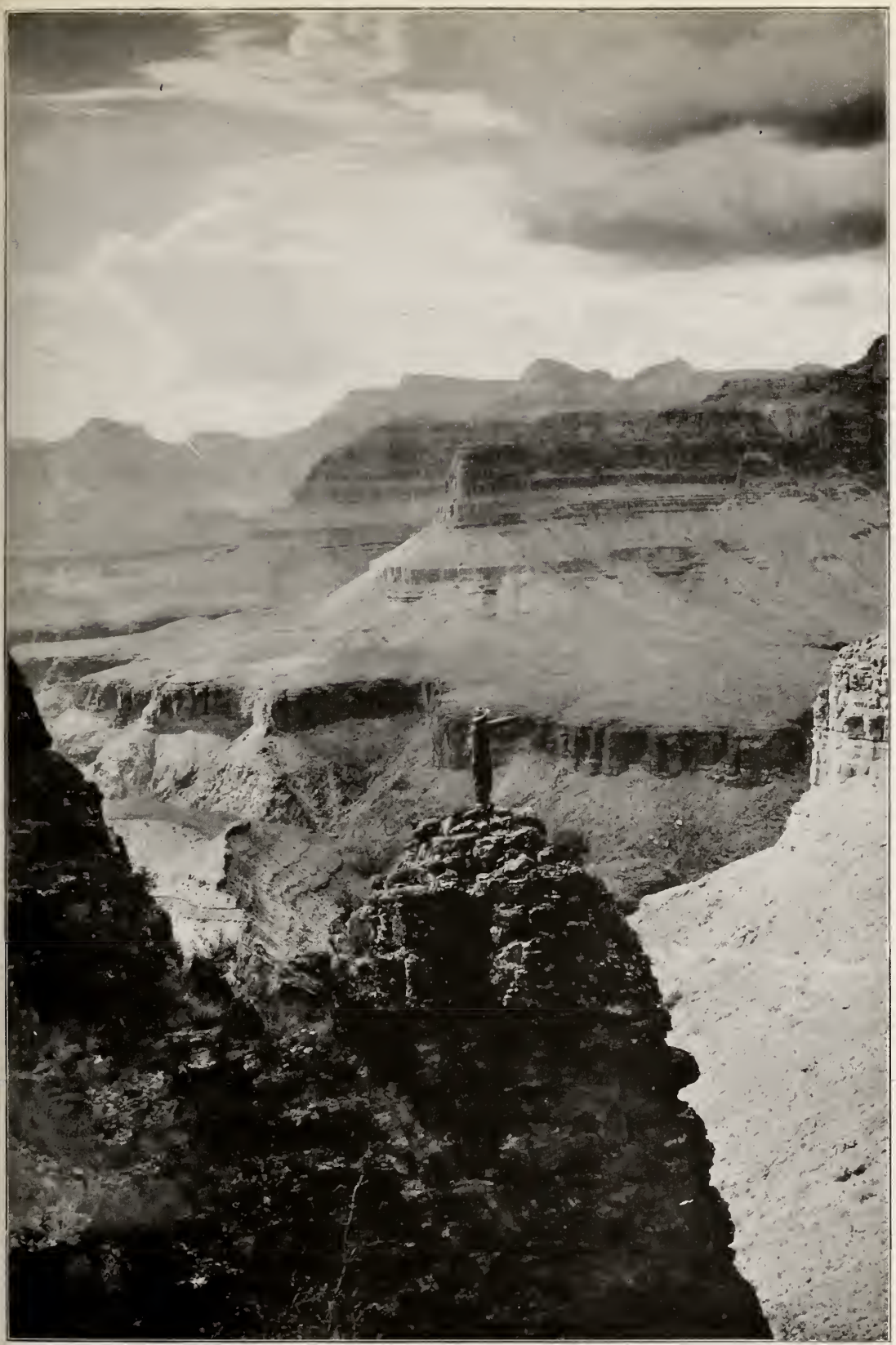
THE RIM ROAD AFFORDS MANY GLORIOUS VIEWS

BY SUNSET AND MOONRISE

"WHEN the light falls into it, harsh, direct, and searching," writes Hamlin Garland, "it is great, but not beautiful. The lines are chaotic, disturbing—but wait! The clouds and the sunset, the moonrise and the storm, will transform it into a splendor no mountain range can surpass. Peaks will shift and glow, walls darken, crags take fire, and gray-green mesas, dimly seen, take on the gleam of opalescent lakes of mountain water."

Copyright by Fred Harvey

HERMIT'S REST, NEAR THE HEAD OF THE HERMIT TRAIL TO THE RIVER



Photograph by U. S. Reclamation Service

"Is Any Fifty Miles of Mother Earth as Fearful, or Any Part as Fearful, as Full of Glory, as Full of God?"—Joaquin Miller

Photograph by U. S. Reclamation Service

Still Farther Down the Hermit Trail

PAINTED IN MAGIC COLORS

THE blues and the grays and the mauves and the reds are second in glory only to the canyon's size and sculpture. The colors change with every changing hour. The morning and the evening shadows play magicians' tricks.

"It seems like a gigantic statement for even Nature to make all in one mighty stone word," writes John Muir. "Wildness so Godful, cosmic, primeval, bestows a new sense of earth's beauty and size. . . . But the colors, the living, rejoicing colors, chanting morning and evening in chorus to heaven! Whose brush or pencil, however lovingly inspired, can give us these? In the supreme flaming glory of sunset the whole canyon is transfigured, as if the life and light of centuries of sunshine stored up in the rocks was now being poured forth as from one glorious fountain, flooding both earth and sky."

Photograph by U. S. Reclamation Service

NEAR THE BOTTOM, SHOWING HERMIT CAMP AT THE FOOT OF A LOFTY MONUMENT

This photograph was taken several years ago. The camp has since been greatly enlarged, affording most comfortable entertainment overnight

Photograph by F. A. Lathe

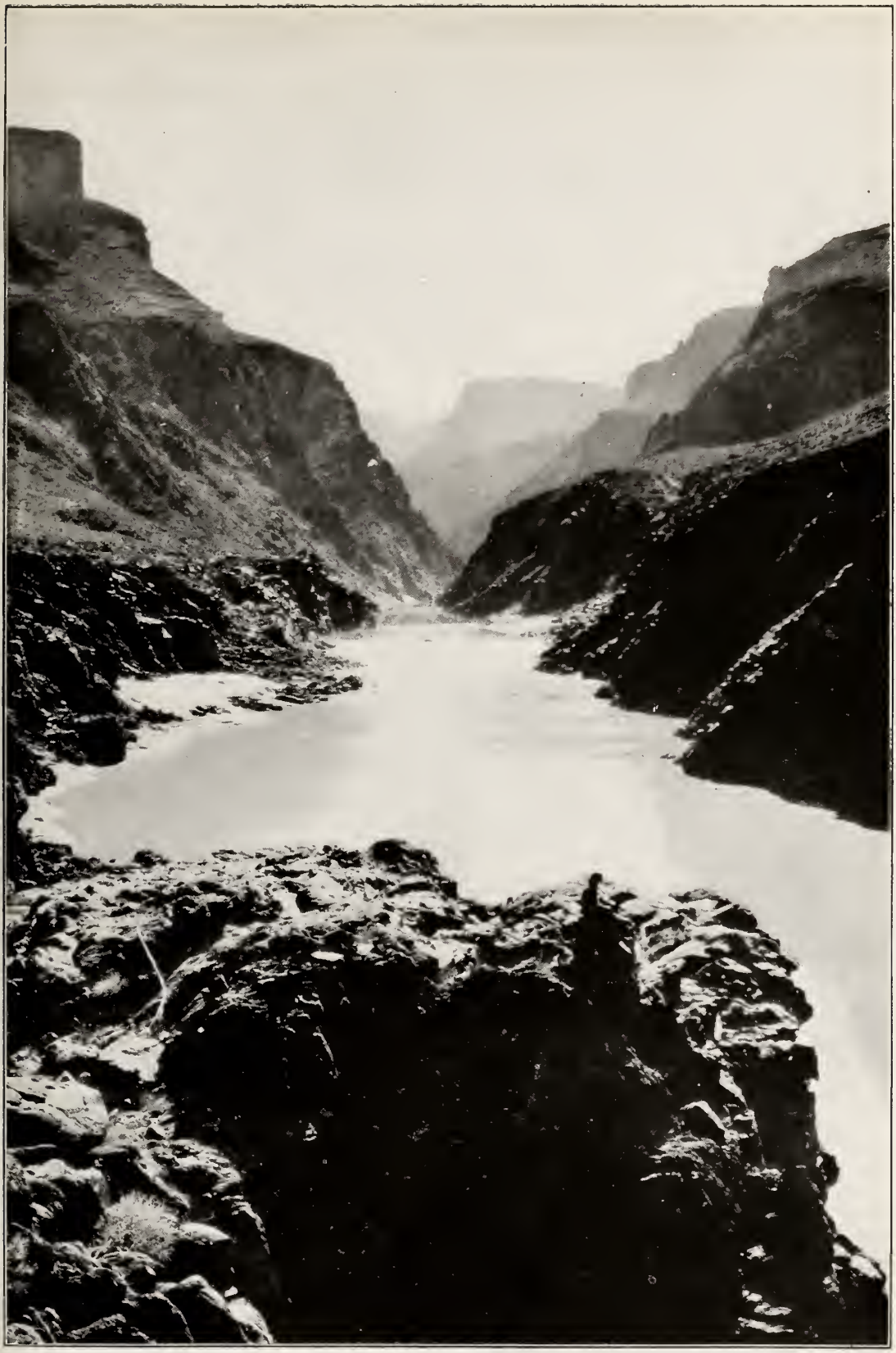
THE PROFOUND ABYSS

ROMANTIC INDIAN LEGEND

THE Indians believed the Grand Canyon the road to heaven.

A great chief mourned the death of his wife. To him came the god Ta-vwoats and offered to prove that his wife was in a happier land by taking him there to look upon her happiness. Ta-vwoats then made a trail through the protecting mountains and led the chief to the happy land. Thus was created the canyon gorge of the Colorado.

On their return, lest the unworthy should find this happy land, Ta-vwoats rolled through the trail a wild, surging river. Thus was created the Colorado.



Photograph by U. S. Forest Service

THE GORGE NEAR THE MOUTH OF SHINUMO CREEK

Copyright by Fred Harvey

HOPI HOUSE AT EL TOVAR, REPRODUCED FROM AN ANCIENT HOPI COMMUNITY DWELLING

Copyright by Fred Harvey

When Clouds and Canyon Meet and Merge

MASTERPIECE OF EROSION

THE rain falling in the plowed field forms rivulets in the furrows. The rivulets unite in a muddy torrent in the roadside gutter. With succeeding showers the gutter wears an ever-deepening channel in the soft soil. With the passing season the gutter becomes a gully. Here and there, in places, its banks undermine and fall in. Here and there the rivulets from the field wear tiny tributary gullies. Between the breaks in the banks and the tributaries irregular masses of earth remain standing, sometimes resembling mimic cliffs, sometimes washed and worn into mimic peaks and spires.

Such roadside erosion is familiar to us all. A hundred times we have idly noted the fantastic water-carved walls and minaretted slopes of these ditches. But seldom, perhaps, have we realized that the muddy roadside ditch and the world-famous Grand Canyon of the Colorado are, from nature's standpoint, identical; that they differ only in soil and size.

The arid States of our great Southwest constitute an enormous plateau or table-land from four to eight thousand feet above sea level.

Rivers gather into a few desert water systems. The largest of these is that which, in its lower courses, has, in unnumbered ages, worn the mighty chasm of the Colorado.

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SUNSET FROM PIMA POINT. "PEAKS WILL SHIFT AND GLOW, WALLS DARKEN, CRAGS TAKE FIRE, AND GRAY-GREEN MESAS, DIMLY SEEN, TAKE ON THE GLEAM OF OPALESCENT LAKES."—HAMLIN GARLAND

Photograph by Putnam & Valentine

From Grand View. "But Wait! The Clouds and the Sunset, the Moonrise and the Storm, Will Transform It into a Splendor No Mountain Range Can Surpass."—Hamlin Garland

The Lifting Mists Disclose the Gorgeous Pattern of the Opposite Rim

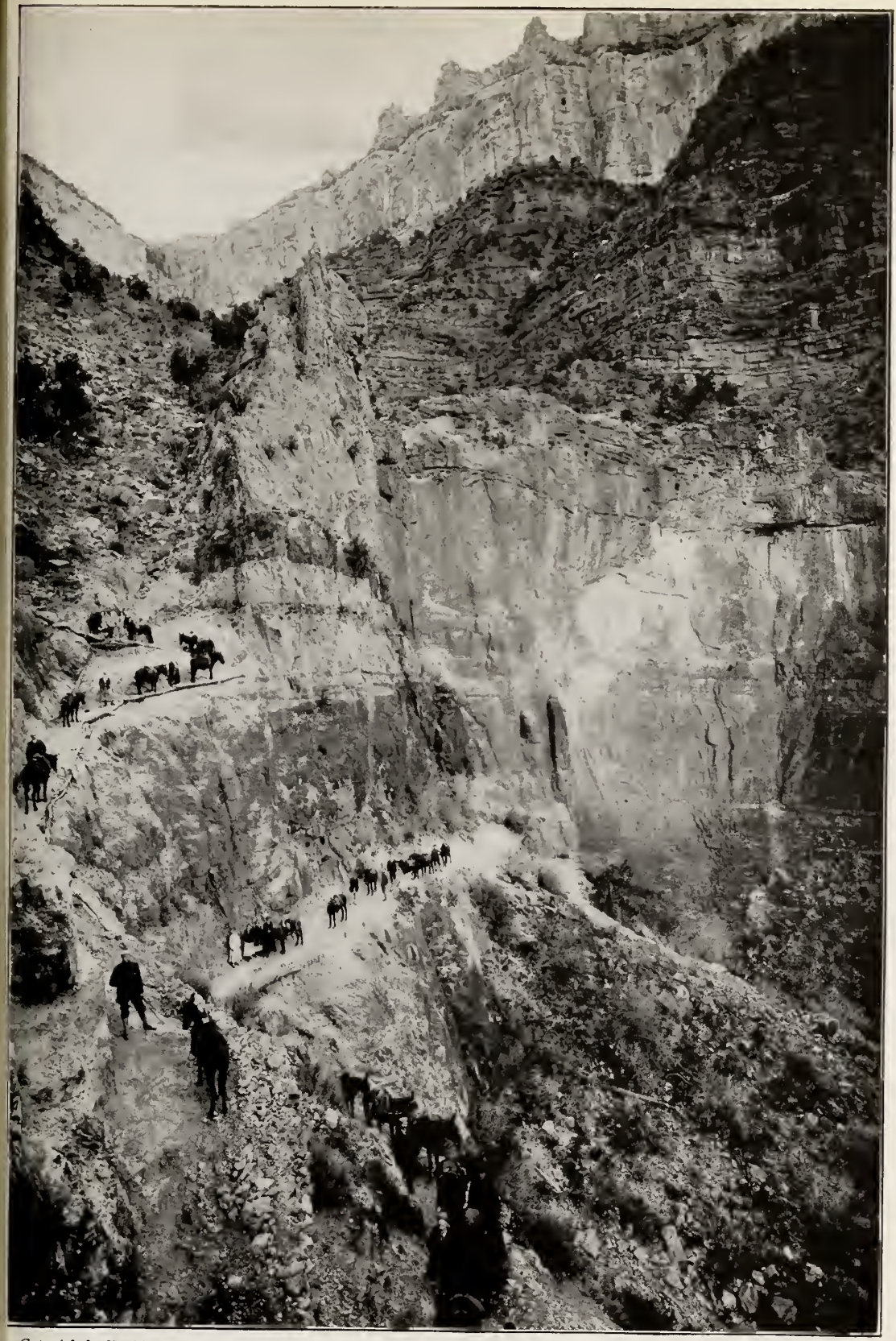
Photograph by U. S. Reclamation Service

THE LOOKOUT AT THE HEAD OF THE BRIGHT ANGEL TRAIL NEAR EL TOVAR

Photograph by U. S. Reclamation Service

WAITING FOR THE SIGNAL TO START DOWN BRIGHT ANGEL TRAIL

One may descend to the river's edge and back in one day by this trail



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THE CELEBRATED JACOB'S LADDER ON THE BRIGHT ANGEL TRAIL

The photograph shows how broad and safe are the Grand Canyon trails. There is no danger in the descent

Photograph by U. S. Forest Service

ON THE MIGHTY RIVER'S BRINK

A QUIET STRETCH BETWEEN TWO RAPIDS

Within the Canyon the river is crossed by cars suspended on wire cables, and also, in quiet reaches, by boats; there are no bridges

Copyright by Fred Harvey

WHERE THE RIVER RESTS BELOW THE CELEBRATED MARBLE CANYON BEFORE TAKING ITS PLUNGE INTO THE GIGANTIC CANYON BELOW

The Colorado rolls through many miles of vast canyons before it reaches Grand Canyon

POWELL'S GREAT ADVENTURE

THE Grand Canyon was the culminating scene of one of the most stirring adventures in the history of American exploration.

For hundreds of miles the Colorado and its tributaries form a mighty network of mighty chasms which few had ventured even to enter. Of the Grand Canyon, deepest and hugest of all, tales were current of whirlpools, of hundreds of miles of underground passage, and of giant falls whose roaring music could be heard on distant mountain summits.

The Indians feared it. Even the hardiest of frontiersmen refused it.

It remained for a geologist and a school-teacher, a one-armed veteran of the Civil War, John Wesley Powell, afterwards director of the United States Geological Survey, to dare and to accomplish.

This was in 1869. Nine men accompanied him in four boats.

There proved to be no impassable whirlpools in the Grand Canyon, no underground passages, and no cataracts. But the trip was hazardous in the extreme. The adventurers faced the unknown at every bend, daily—sometimes several times daily—embarking upon swift rapids without guessing upon what rocks or in what great falls they might terminate. Continually they upset. They were unable to build fires sometimes for days at a stretch.

Four men deserted, hoping to climb the walls, and were never heard from again—and this happened the very day before Major Powell and his faithful half dozen floated clear of the Grand Canyon into safety.

Photograph by U. S. Geological Survey

TWO OF THE BOATS USED BY MAJOR POWELL IN EXPLORING THE CANYON

Photograph by El Tovar Studio

MEMORIAL JUST ERECTED BY THE DEPARTMENT OF THE INTERIOR TO MAJOR JOHN WESLEY POWELL

It stands on the rim at Sentinel Point. Upon the altar which crowns it will blaze ceremonial fires

EASY TO REACH AND TO SEE

IT is possible to get a glimpse of the Grand Canyon by lengthening your transcontinental trip one day, but this day must be spent either on the rim or in one hasty rush down the Bright Angel Trail to the river's edge; one can not do both the same day. Two arduous days, therefore, will give you a rapid glance at the general features. Three days will enable you to substitute the newer Hermit Trail, with a night in the canyon, for the Bright Angel Trail. Four or five days will enable you to *see* the Grand Canyon; but after you see it you will want to live with it awhile. There are two other trails, the Bass Trail and the Grand View.

The canyon should be seen first from the rim. Hours, days, may be spent in emotional contemplation of this vast abyss. Navajo Point, Grand View, Shoshone Point, El Tovar, Hopi Point, Sentinel Point, Pima Point, Yuma Point, the Hermit Rim—these are a few only of many spots of inspiration.

An altogether different experience is the descent into the abyss. This is done on mule-back over trails which zigzag steeply but safely down the cliffs.

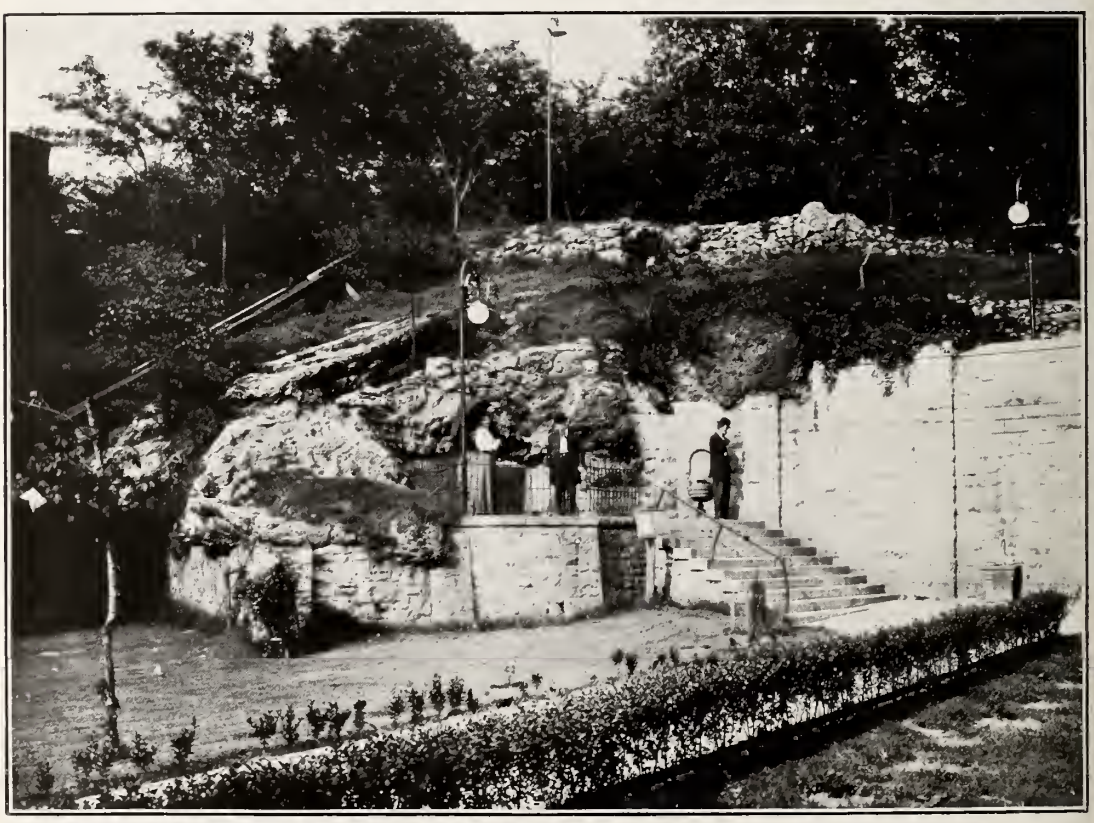
The hotels, camps, and facilities for getting around are admirable. Your sleeper brings you to the very rim of the canyon.

General View of Hot Springs Reservation, the First National Park

The hill on the right is Hot Springs Mountain; the large group of buildings is the Army and Navy Hospital; the city is seen on the left

HOT SPRINGS OF ARKANSAS
LASSEN VOLCANIC NATIONAL PARK
MOUNT McKINLEY NATIONAL PARK
HAWAII NATIONAL PARK
ZION NATIONAL PARK
MID-CONTINENT PARKS
LAFAYETTE NATIONAL PARK
THE NATIONAL MONUMENTS

The Promenade at Hot Springs



Maurice Spring, Hot Springs Reservation

This is centrally located and hundreds of persons visit it daily

Main Entrance to the Hot Springs Reservation

SPRINGS OF HEALING

FROM the slopes of a picturesque wooded hill among the wild and romantic Ozark Mountains of Arkansas flow springs of hot water whose powers to alleviate certain bodily ills have been recognized for many generations. Tradition has it that their curative properties were known to the Indians long before the Spanish invasion. It is probable that they were known to De Soto, who died in 1542, less than a hundred miles away. It is tradition that Indian warring tribes suspended all hostilities at these healing springs whose neighborhood they called "The Land of Peace."

Government analyses of the waters disclose more than twenty chemical constituents, but it is not these nor their combination to which is principally attributed the water's unquestioned helpfulness in many disordered conditions, but to their remarkable radioactivity.

The reservation is the oldest national park, having received that status in 1832, forty years before the wonders of the Yellowstone first inspired Congress with the idea that scenery was a national asset deserving of preservation for the use and enjoyment of succeeding generations. No aesthetic consideration was involved in this early act of national conservation. Congress was inspired only by the undoubted, but at that time inexplicable, natural power of these waters to alleviate certain bodily ills. The motive was to retain these unique waters in public possession to be available to all persons for all time at a minimum, even a nominal, cost.

One of the Best Golf Courses in the South

DR. NATURE'S WATER CURE

HOT SPRINGS has much besides its curative waters to attract and hold the visitor. It has one of the best and most interesting golf courses in the South. The surrounding country is romantically beautiful. Many miles of woodland trail lead the walker and the horseback rider through pine-scented glades and glens and over mountain tops of unusual charm. There is tennis for the young folks, ostrich and alligator farms for the curious, and the gayeties of life in big hotels for all.

Hot Springs is not merely a winter resort, as used to be supposed. Climate and conditions are delightful the year around, as increasing throngs are rapidly discovering. It is above all a place for rest and recuperation. More and more winter visitors are remaining through April and May, when the spring is young and glorious and the baths the most efficacious. But those who remain after March should bring summer clothing, as the temperature then ranges from 65 to 85 degrees.

The reservation includes three mountains and a lake, and the tract incloses all the forty-six hot springs. Eleven bathhouses, some of them as complete and luxurious in equipment as any in the world, are in the reservation, and a dozen more in the city, all under Government regulation. There are also cold springs possessing curative properties.

There are many hotels, the largest having accommodations for a thousand guests, and several hundred boarding houses, many at very modest prices. Cottages and apartments may be rented for light housekeeping.

Hot Springs Mountain, from whose sides flow the cleansing waters, is about fifty miles west by south from Little Rock.

Photograph by P. J. Thompson

Crater of Lassen Peak After Eruption of 1914

ACTIVE VOLCANO AT HOME

CONGRESS created the Lassen Volcanic National Park in August, 1916. A month later this volcano was again in active eruption; it is the only active volcano in the continental United States. It is situated in northern California, and is one of the celebrated series of peaks, including Mount Baker, Mount Rainier, Mount Hood, Mount Shasta, and what was once Mount Mazama (Crater Lake), in the Cascade Range.

The region is one of extraordinary interest. Lassen Peak is 10,437 feet in altitude. Cinder Cone, which showed some activity a few years ago, has an altitude of 6,907 feet. North Peak, Southwest Peak, and Prospect Peak are prominent elevations in the National Park.

Other features of interest are the Devils Half Acre, inclosing hot springs and mud geysers, Bumpass and Morgan Hot Springs, lakes of volcanic glass, and ice caves. There are seven lakes, numerous trout streams, and many majestic canyons. There are also forests of yellow and white pine, fir, and lodgepole.

"On the whole," writes Prof. Douglas W. Johnson, of Columbia University, "it is difficult to imagine a region where the more striking phenomena of nature are developed on a grander scale."

Photograph by W. S. Valentine

LASSEN PEAK IN ERUPTION, JULY, 1914

Mount McKinley, Monster of Mountains

MONSTER OF MOUNTAINS

MOUNT McKINLEY, a National Park since 1917, is the loftiest mountain in America. It towers 20,300 feet above tide. Its gigantic ice-covered bulk rises more than 17,000 feet above the eyes of the observer. It is ice plated 14,000 feet below its glistening summit.

This enormous mass is the climax of the great Alaskan Range, which extends, roughly, east and west across southeast central Alaska.

The reservation contains 2,200 square miles. Its northern slopes, which overlook the Tanana watershed with its gold-mining industry, are broad valleys inhabited by enormous herds of caribou. Its southern plateau is a winter wilderness through which glaciers of great length and enormous bulk flow into the valleys of the south. In this national park, which the railroad now building by Government into the Alaskan interior will open presently to the public, America possesses Alpine scenery upon a titanic scale. In fact, it matches the Himalayas; as a spectacle Mount McKinley even excels their loftiest peaks, for the altitude of the valleys from which the Himalayas are viewed exceeds by many thousand feet that of the plains from which the awed visitor looks up to McKinley's towering height.

Photograph by the Geophysical Laboratory, Carnegie Institution

THE GIGANTIC CRATER OF HALEAKALA, SHOWING SEVERAL OF THE GREAT CINDER CONES WITHIN IT

Photograph by the Geophysical Laboratory, Carnegie Institution

CRATER OF KILAUEA, SHOWING THE POSITION OF THE CELEBRATED LAVA LAKE

Photograph by H. O. Wood, Hawaiian Volcano Observatory

THE CELEBRATED "BALLET DANCER" OF MAUNA LOA, HAWAII

A remarkable photograph of the explosion on the flank of Mauna Loa on May 19, 1916

HAWAII'S SMOKING SUMMITS

THE Hawaii National Park, created in 1916, includes three celebrated Hawaiian volcanoes, Kilauea, Mauna Loa, and Haleakala. "The Hawaiian Volcanoes," writes T. A. Jaggar, director of the Hawaiian Volcano Observatory, "are truly a national asset, wholly unique of their kind, the most famous in the world of science and the most continuously, variously, and harmlessly active volcanoes on earth. Kilauea crater has been nearly continuously active, with a lake or lakes of molten lava, for a century. Mauna Loa is the largest active volcano and mountain mass in the world, with eruptions about once a decade, and has poured out more lava during the last century than any other volcano on the globe. Haleakala is a mountain mass ten thousand feet high, with a tremendous crater rift in its summit eight miles in diameter and three thousand feet deep, containing many high lava cones.

"Haleakala is probably the largest of all known craters among volcanoes that are technically known as active. It erupted less than two hundred years ago. The crater at sunrise is the grandest volcanic spectacle on earth."

The lava lake at Kilauea is the most spectacular feature of the new national park. It draws visitors from all over the world. It is a lake of molten, fiery lava a thousand feet long, splashing on its banks with a noise like waves of the sea, while great fountains boil through it fifty feet high.

The park also includes gorgeous tropical jungles and fine forests. Sandalwood, elsewhere extinct, grows there luxuriantly. There are mahogany groves.

Photograph by the Geophysical Laboratory, Carnegie Institution

NEAR VIEW OF THE LAVA LAKE OF KILAUEA IN HEAVY SMOKE

Photograph by the Geophysical Laboratory, Carnegie Institution

LAVA FLOW ON FLOOR OF KILAUEA CRATER, SHOWING CURIOUS ROPY FORMATIONS

Photograph by Geophysical Laboratory, Carnegie Institution

THE KILAUEA LAVA LAKE CLOSE BY. PICTURE TAKEN BY THE LIGHT OF THE LAVA ITSELF DURING A PERIOD OF GREAT ACTIVITY

Photograph by Geophysical Laboratory, Carnegie Institution

NIGHT PHOTOGRAPH OF THE KILAUEA LAVA LAKE, NEW FOUNTAIN JUST BREAKING THROUGH PERIOD OF MODERATE ACTIVITY

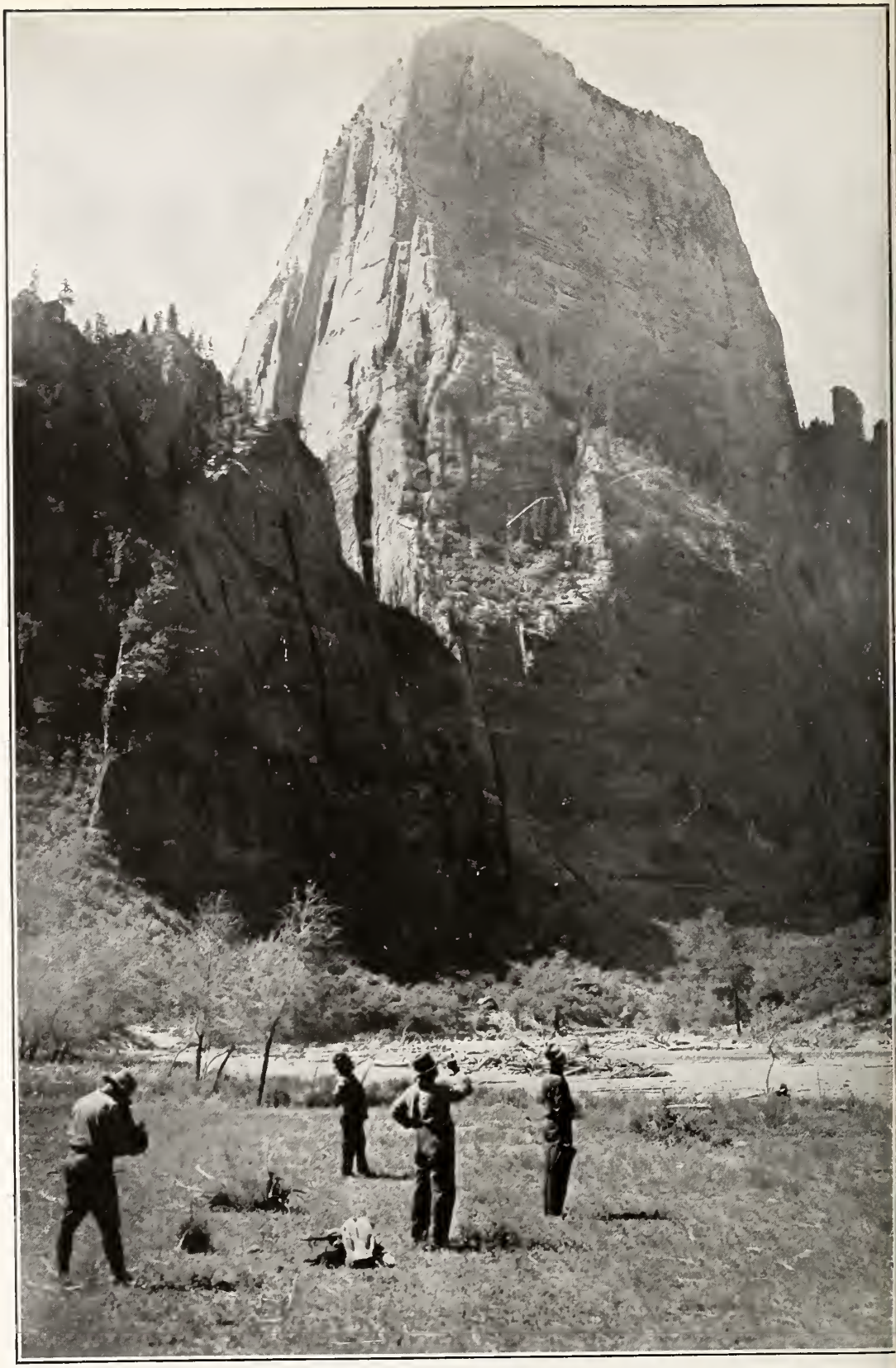
ITS TROPICAL GARDENS

ALTHOUGH the Hawaii National Park includes only volcanic summits, a visit necessarily means all the pleasures of the dreamy islands. But the park boundaries include tropical gardens of the utmost luxuriance. Tree ferns along the trails rise to a height of forty feet. The automobile road to the edge of Kilauea's burning pit is bordered with fuschias, and nasturtiums climbing over the trees along the way add their gay colors to the scene. There are groves of koa trees, which produce the Hawaiian mahogany of the glowing lighter tints. The ohia tree with its terra cotta pom-pom of flowers, the monkey-pod tree with its pink feathery bloom, the rich blossoms of the ginger, and scores of other bright-colored flowers on tree and shrub paint the lower levels in gorgeous hues. The floral profusion of the islands is revealed by the fact that the brilliant hibiscus appears in Hawaii in fifteen hundred varieties.

The Silver Sword, Which Grows Only in the Crater of Haleakala

Sugar cane, of course, is grown commercially on a large scale; and acres upon acres of pineapple clothe the valleys with velvety green. The coconut palm with its long slanting stem and feathery top, proclaims to the visitor that he is in a strange land.

Tree Ferns Rise to a Height of Forty Feet



Photograph by Douglas White

EL GOBERNADOR IN ZION CANYON

This monolith, which rises 3,100 feet from the valley floor, is brilliant red two-thirds up, then glistening white

ZION NATIONAL PARK

THE latest scenic discovery of America is the canyon of many vivid colors, through which the North Fork of the Virgin River emerges from the shales and sandstones of southwestern Utah to find its way to the Colorado River and the Pacific. Zion Canyon was known to the Mormons as early as 1861 when Brigham Young designated it a refuge for his sect in case of trouble. Later it was known to the geologists, who buried graphic descriptions in their scientific texts. It was made a national monument in 1909, but the public did not discover it until 1917. Now it is reached by rail and motor, and a public camp has comfort for all comers.

Zion Canyon is in truth the Rainbow of the Desert. Its carved cliffs are quite as high and its conformation not dissimilar to those of the Yosemite Valley. But instead of granite, its precipices are of sandstone stratified in brilliant contrasts. Most of its cliffs are gorgeously red two-thirds up, and glistening white above; and some of these white-topped monsters are capped again in crimson. In places the white is streaked across with crimson bands like a Roman sash.

THE PUBLIC CAMP ON THE FLOOR OF ZION CANYON

Often the White Tops of These Fairy Cliffs are Streaked with Vermilion

Photograph by Willis T. Lee

Where the Canyon Narrows

Photograph by R. D. Adams

From Right to Left: East Temple of the Sun, The Watchman, Mountain of the Sun

The Three Patriarchs—Vermilion Two-Thirds Up, with White Summits

MID-CONTINENT PARKS

THE WIND CAVE NATIONAL PARK

THE Black Hills of southwestern South Dakota, scene of Custer's first stand, famous for many years for Indian fights and frontier lawlessness, are chiefly celebrated in this generation for a limestone cave of large size and interesting decoration. It is called Wind Cave because of the strong currents of air which alternate in and out of its mouth.

The walls and ceiling of the various passages and chambers which constitute the cave are elaborately covered with the formations common to most caves, which here result in tracery and carvings of the most elaborate and surprising description. The park is also a game preserve of unusual merit.

THE PLATT NATIONAL PARK

SOUTHERN Oklahoma's famous curative springs were conserved for the public benefit in 1906 by the creation of the Platt National Park. Sulphur springs predominate, but there are bromide and other springs of medicinal value, besides several fine springs nonmineral in character. Altogether they have an approximate discharge of nearly five million gallons daily.

Many thousands visit these springs every year. The country is one of great charm and is notable for its bird life. The waters are bottled and shipped to many parts of the country.

SULLYS HILL PARK

THIS reservation is on the shore of Devils Lake, North Dakota, within two miles of the well-known Fort Totten Indian School. It is a country of much natural beauty and admirably adapted to the purposes of a game preserve, for which Congress recently made appropriations.

Photograph by George R. King

SEA AND MOUNTAIN MEET

THE National Park Service is represented on the Atlantic coast by the Lafayette National Park in Maine. It includes the splendid grouping of mountains which begins a mile south of Bar Harbor and covers the southern and western portions of Mount Desert Island. The reservation is girt with ocean-side drives and surrounded by summer resorts. The splendid lake-studded lands which compose it were contributed or purchased by public-spirited citizens and given to the Nation in 1916. Congress made it a national park in 1919.

Lafayette offers a marked contrast to the national parks of the West. It is the oldest part of continental America. Its granites were worn by the frosts, the rains, and the waves many millions of years before the Rockies and the Sierras emerged from the prehistoric sea. Its deciduous forests rank with the finest of the Appalachian region.

It is the only spot on our Atlantic coast where mountain and seashore intimately mingle; the rocky coast of New England is nowhere nobler than here. From the viewpoints of its crags and slopes ocean and lake combine.

The historical associations of Lafayette are among the oldest of America, Champlain having landed there in 1604.

Looking North Toward Bar Harbor

Photograph by George R. King

MOUNTAIN, LAKE, AND FIORD

Photograph by George R. King

WHEN THE TIDE IS OUT. THE ORGAN

Photograph by George R. King

THE HEART OF LAFAYETTE NATIONAL PARK—JORDAN POND, UNDER JORDAN MOUNTAIN AND PEMETIC MOUNTAIN ON THE SKY LINE

Photograph by H. C. Tibbitts

IT IS ONE OF THE NOBLEST FORESTS OF REDWOOD SAVED FROM THE AXE

Photograph by H. C. Tibbitts

A Glimpse of the Beautiful Muir Woods

IN THE FOREST PRIMEVAL

WITHIN ten miles of the city of San Francisco, in Marin County, California, lies one of the noblest forests of primeval Redwood in America. That it stands to-day is due first to the fact that its outlet to the sea instead of to San Francisco Bay made it unprofitable to lumber in the days when redwoods grew like grain on California's hills.

The Muir Woods National Monument contains three hundred acres. Interspersed with the superb Redwood, the Sequoia sempervirens, sister to the Giant Sequoia of the Sierra, are many fine specimens of Douglas fir, Madrona, California Bay, and Mountain Oak. The forest blends into the surrounding wooded country. It is essentially typical of the redwood growth, with a rich stream-watered bottom carpeted with ferns, violets, oxalis, and azalea.

Many of the redwoods are magnificent specimens and some have extraordinary size. Cathedral Grove, and Bohemian Grove, where the famous revels of the Bohemian club were held before the club purchased its own permanent grove, are unexcelled in luxuriant beauty.

This splendid area of forest primeval was named by its donors, Mr. and Mrs. William Kent, in honor of the celebrated naturalist of the Sierra, John Muir. It is so near San Francisco that thousands are able to enjoy its cathedral aisles of noble trees.

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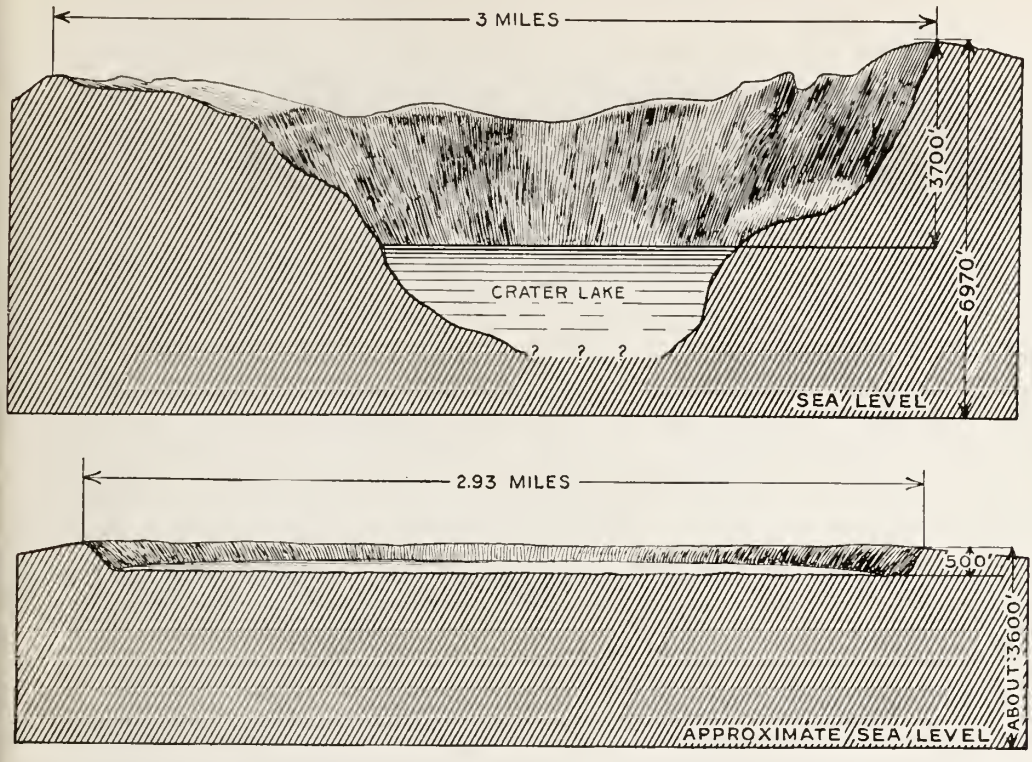
KATMAI'S STEAMING VENTS



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THE KATMAI CRATER (UPPER) COMPARED WITH KILAUEA CRATER (LOWER)

ONE of the greatest explosive volcanic eruptions of recent times blew several cubic miles of material out of Mount Katmai, on the southern shore of Alaska, in June, 1912. It left a great gulf where once the summit reared, and in its bottom a crater lake of unknown epth. A few miles away, across the divide, lies a group of valleys from which urst many thousands of vents of superheated vapors. The greatest of these as been named the "Valley of Ten Thousand Smokes."

This remarkable volcanic region, to explore which the National Geographic ociety has sent five expeditions, has no parallel elsewhere to-day. It is a ver- able land of wonders. In the valley the ground in many places is too hot for alking. In others one may camp comfortably in the coldest nights in a warm ent and cook one's breakfast on a steaming crack outside. The volume is eyond belief. A few feet below the surface, the temperature of the vents is ften excessively high. Once the Yellowstone geyser basins probably resembled ie "Valley of Ten Thousand Smokes," and a few hundred thousand years om now this valley may become a geyser basin greater than Yellowstone's.

The explosion which wrecked Mount Katmai was heard at Juneau, seven undred and fifty miles away. Its dust fell at Ketchikan, nine hundred miles way. Its fumes were smelled at Vancouver Island, fifteen hundred miles away.

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SUPPER TIME IN THE "VALLEY OF TEN THOUSAND SMOKES"

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DOWN THE STEAMING SURFACE OF FALLING MOUNTAIN ROLL MASSES OF ROCKS OF ALL SIZES

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FOLLOWING THE GREAT ERUPTION, A VAST QUANTITY OF PASTY LAVA ISSUED FROM THE VENT

Montezuma Castle

MONTEZUMA CASTLE NATIONAL MONUMENT

THIS remarkable relic of a prehistoric race is the principal feature of a well-preserved group of cliff dwellings in the northeastern part of Yavapai County, Arizona, known as the Montezuma Castle National Monument. The unique position and size of the ruin gives it the appearance of an ancient castle; hence its name.

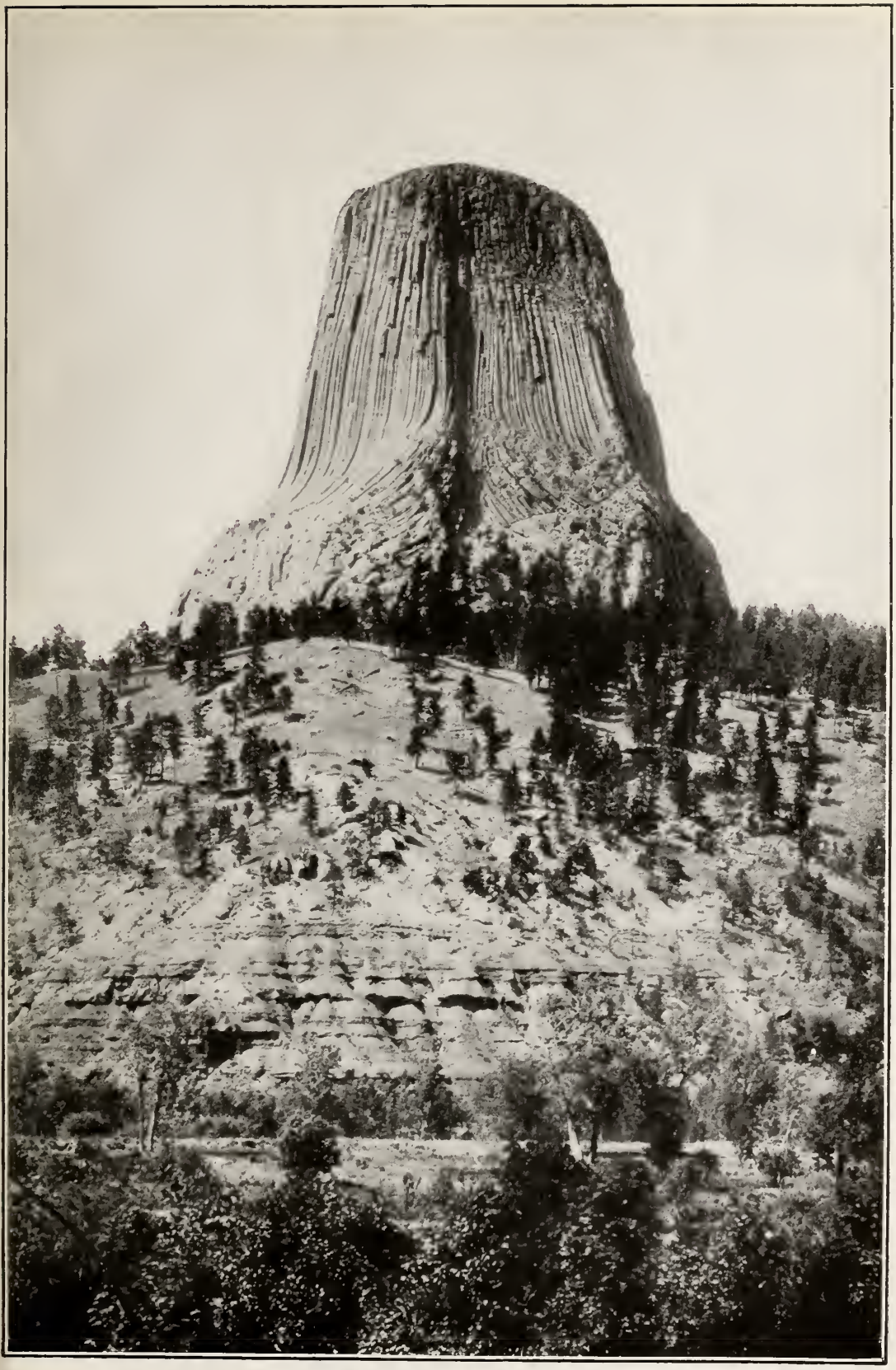
The structure is about fifty feet in height by sixty feet in width, built in the form of a crescent, with the convex part against the cliff. It is five stories high, the fifth story being back under the cliff and protected by a masonry wall four feet high, so that it is not visible from the outside. The walls of the structure are of masonry and adobe, plastered over on the inside and outside with mud.

DEVILS TOWER NATIONAL MONUMENT

THIS extraordinary mass of igneous rock is one of the most conspicuous features in the Black Hills region of Wyoming.

The tower is a steep-sided shaft rising six hundred feet above a rounded ridge of sedimentary rocks, about six hundred feet high, on the west bank of the Belle Fourche River. Its nearly flat top is elliptical in outline. Its sides are strongly fluted by the great columns of igneous rock, and are nearly perpendicular, except near the top, where there is some rounding; and near the bottom, where there is considerable outward flare. The tower has been scaled in the past by means of special apparatus, but only at considerable risk.

The great columns of which the tower consists are mostly pentagonal in shape, but some are four or six sided.



THE DEVILS TOWER, WYOMING

THE GREATEST OF UTAH'S FOUR MAGNIFICENT NATURAL BRIDGES

NATURAL BRIDGES NATIONAL MONUMENT

THE natural bridges for whose preservation this national monument in San Juan County, Utah, was created are understood to be among the largest examples of their kind, the greatest of the three having a height of two hundred and twenty-two feet, and a thickness of sixty-five feet at the top of the arch. The arch is twenty-eight feet wide, the span two hundred and sixty-one feet, and the height of the span one hundred and fifty-seven feet. The other two bridges are a little smaller. All occur within about five miles. The whole constitutes a really imposing spectacle.

In the neighborhood are found, in addition to a couple of fine cavern springs and other interesting and scientifically valuable natural curiosities, many prehistoric ruins of cavern and cliff dwellings.

THE CHACO CANYON NATIONAL MONUMENT

THE Chaco Canyon National Monument preserves remarkable relics of a prehistoric people once inhabiting New Mexico. Here are found numerous communal or pueblo dwellings built of stone, among which is the ruin known as Pueblo Bonito, containing, as it originally stood, twelve hundred rooms. It is the largest prehistoric ruin in the Southwest.

So difficult are they of access that little excavation has been done.

SHOSHONE CAVERN NATIONAL MONUMENT

A FEW miles east of the celebrated Shoshone Dam, in Wyoming, is found the entrance to the picturesque cave to preserve which the Shoshone Cavern National Monument was created.

Some of the rooms are a hundred and fifty feet long and forty or fifty feet high, and all are remarkably encrusted with limestone crystals.

The passages through the cavern are most intricate, twisting, turning, doubling back, and descending so abruptly that ladders are often necessary.

COLORADO NATIONAL MONUMENT

THIS area, near Grand Junction, Colorado, is similar to that of the Garden of the Gods at Colorado Springs, only much more beautiful and picturesque. With possibly two exceptions it exhibits probably as highly colored, magnificent, and impressive examples of erosion, particularly of lofty monoliths, as may be found anywhere in the West.

These monoliths are located in several tributary canyons. Some of them are of gigantic size; one over four hundred feet high is almost circular and a hundred feet in diameter at base. Some have not yet been explored.

LEWIS AND CLARK CAVERN NATIONAL MONUMENT

THE feature of this national monument is a limestone cavern of great scientific interest because of its length and because of the number of large vaulted chambers it contains. It is of historic interest, also, because it overlooks for more than fifty miles the Montana trail of Lewis and Clark.

The vaults of the cavern are magnificently decorated with stalactite and stalagmite formations of great variety of size, form, and color, the equal of, if not rivaling, the similar formations in the well-known Luray caves in Virginia. The cavern has been closed on account of depredations of vandals.

THE DINOSAUR NATIONAL MONUMENT

THE Dinosaur National Monument in Northeastern Utah was created to preserve remarkable fossil deposits of extinct reptiles of great size. The reservation contains eighty acres of Juratrias rock.

For years prospectors and residents had been finding large bones in the neighborhood, and in 1909 Prof. Earl B. Douglass of the Carnegie Museum of Pittsburgh, under a permit from the Department of the Interior, undertook a scientific investigation. The results exceeded all expectation. Remains of many enormous animals which once inhabited what is now our Southwestern States have been unearthed in a state of fine preservation. These include complete and perfect skeletons of large dinosaurs.

The chief find was the perfect skeleton of a brontosaurus eighty-five feet long and sixteen feet high which may have weighed, when living, twenty tons

UNEARTHING THE SKELETON OF A GIANT DINOSAUR OF PREHISTORIC DAYS

RAINBOW BRIDGE NATIONAL MONUMENT

THIS natural bridge is located within the Navajo Indian Reservation, near the southern boundary of Utah, and spans a canyon and small stream which drains the northwestern slopes of Navajo Mountain. It is of great scientific interest as an example of eccentric stream erosion.

Among the known extraordinary natural bridges of the world, this bridge is unique in that it is not only a symmetrical arch below but presents also a curved surface above, thus suggesting roughly a rainbow. Its height above the surface of the water is three hundred and nine feet and its span is two hundred and seventy-eight feet.

The bridge and the neighboring canyon walls are gorgeously clothed in mottled red and yellow. It was first seen by white men in August, 1909, when Professor Byron Cummings, John Wetherill, and William B. Douglass visited it under the guidance of an Indian boy.

THE CASA GRANDE NATIONAL MONUMENT

ONE of the best preserved and most interesting ruins in the southwest has been preserved in this reservation, which is near Florence, Arizona. The structure was once at least four stories high. Many mounds in the neighborhood indicate that it was once one of a large group of dwellings of some importance. The ruin was discovered by the intrepid Jesuit missionary, Father Eusebio Francisco Kino, at the end of the seventeenth century.

THE PAPAGO SAGUARO NATIONAL MONUMENT

WITHIN this national monument, which lies about nine miles east of Phoenix, Ariz., and less than a dozen miles from the Apache Trail, grow splendid examples of characteristic desert flora, including many striking specimens of giant cactus (saguaro) and many other interesting species of cacti, such as the prickly pear and cholla.

EL MORRO NATIONAL MONUMENT

EL MORRO, or Inscription Rock, in western central New Mexico, is an enormous sandstone rock rising a couple of hundred feet out of the plain and eroded in such fantastic form as to give it the appearance of a castle.

The earliest inscription is dated February 18, 1526. Historically the most important inscription is that of Juan de Oñate, a colonizer of New Mexico and the founder of the city of Santa Fe, in 1606. It was in this year that Oñate visited El Morro and carved this inscription on his return from a trip to the head of the Gulf of California. There are nineteen other Spanish inscriptions.

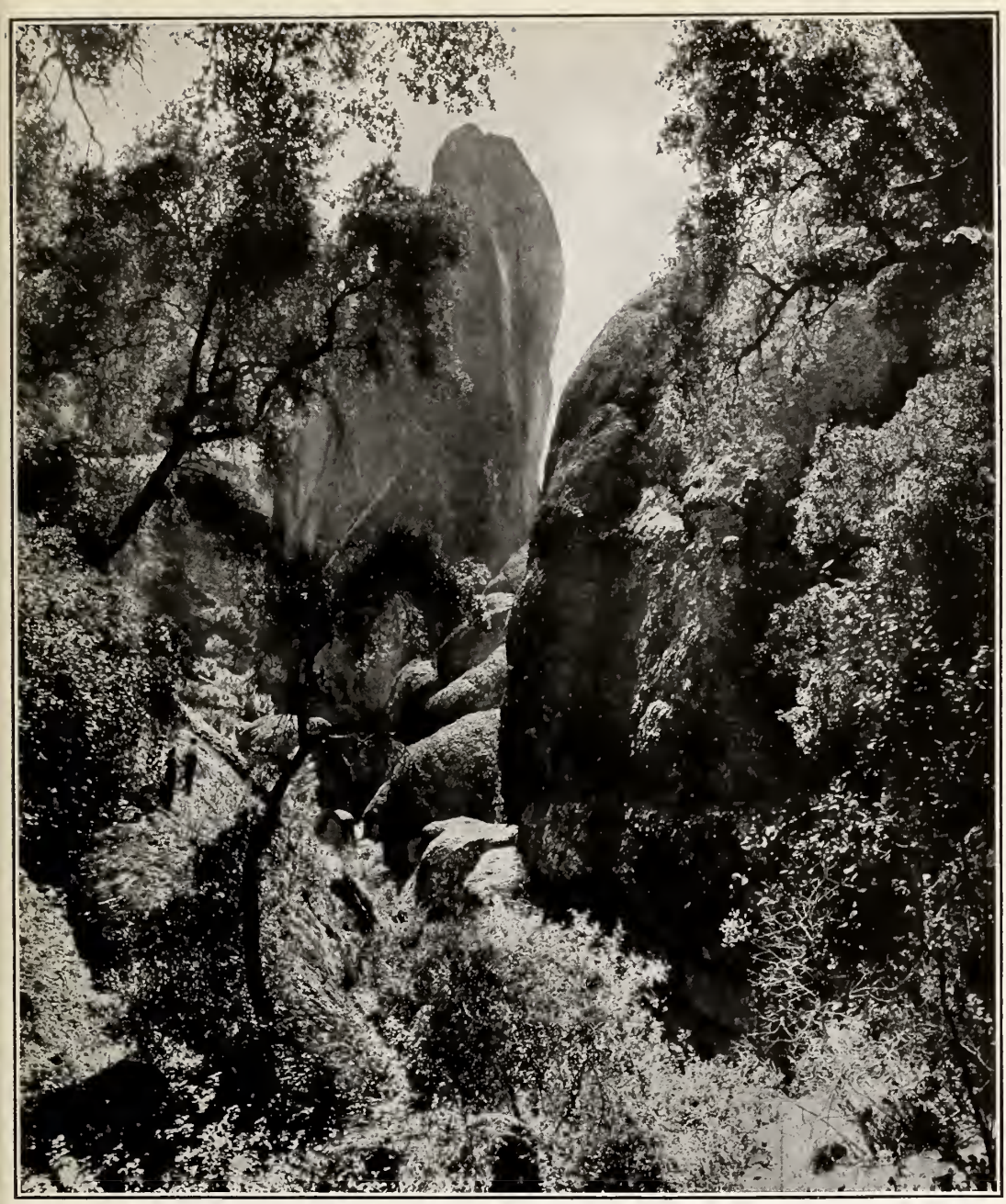
CAPULIN MOUNTAIN NATIONAL MONUMENT

CAPULIN MOUNTAIN is a volcanic cinder cone of recent origin, 6 miles southwest of Folsom, N. Mex. It is the most magnificent specimen of a considerable group of craters. Capulin has an altitude of 8,000 feet, rising 1,500 feet above the surrounding plain. It is almost a perfect cone.

VERENDRYE NATIONAL MONUMENT

FROM the left bank of the Missouri River, at Old Crossing, N. Dak., rises an impressive eminence from which the great plains west of the Rockies doubtless were first seen by civilized man. Crow-high Butte is the second highest elevation in the State. It is conserved by presidential proclamation under the title of Verendrye National Monument.

Verendrye, the celebrated French explorer, started from the north shore of Lake Superior 60 years before the Lewis and Clark expedition, passed westward and southwestward into the unknown regions of the plains and the mountains, and, about 1740, stood upon the summit of this striking butte.



The Needles, Pinnacles National Monument

PINNACLES NATIONAL MONUMENT

THE spires, domes, caves, and subterranean passages of the Pinnacles National Monument in San Benito County, California, are well worth a visit. The name is derived from the spirelike formations arising from six hundred to a thousand feet from the floor of the canyon, forming a landmark visible many miles in every direction.

A series of caves, opening one into the other, lie under each of the groups of rock. These vary greatly in size, one in particular, known as the Banquet Hall, being about a hundred feet square, with a ceiling thirty feet high.

THE TUMACACORI NATIONAL MONUMENT

THE Tumacacori National Monument in Santa Cruz County, Arizona, was created to preserve a very ancient Spanish mission ruin dating, it is thought, from the latter part of the sixteenth century. It was built by Jesuit priests from Spain and operated by them for over a century.

After the year 1769 priests belonging to the order of Franciscan Fathers took charge of the mission and repaired its crumbling walls, maintaining peaceable possession for about sixty years, until driven out by Apache Indians.

GRAN QUIVIRA NATIONAL MONUMENT

THE Gran Quivira has long been recognized as one of the most important of the earliest Spanish church or mission ruins in the Southwest. It is in Central New Mexico. Near by are numerous Indian pueblo ruins, occupying an area many acres in extent, which also, with sufficient land to protect them, was reserved. The outside dimensions of the church ruin, which is in the form of a short-arm cross, are about forty-eight by one hundred and forty feet, and its walls are from four to six feet thick and from twelve to twenty feet high.

NAVAJO NATIONAL MONUMENT

THIS tract encloses three interesting and extensive prehistoric pueblos or cliff-dwelling ruins in an excellent state of preservation. These are known as the Betatakin, the Keet Seel, and Inscription House.

Inscription House Ruin, on Navajo Creek, is regarded as extraordinary, not only because of its good state of preservation, but because of the fact that upon the walls of its rooms are found inscriptions written in Spanish by early explorers and plainly dated 1661.

THE PETRIFIED FOREST OF ARIZONA

THE Petrified Forest National Monument lies in the area between the Little Colorado River and the Rio Puerco, fifteen miles east of their junction. This area is of interest because of the abundance of petrified coniferous trees. It has exceptional scenic features, also.

The trees lie scattered about in great profusion; none, however, stands erect in its original place of growth, as in the Yellowstone National Park.

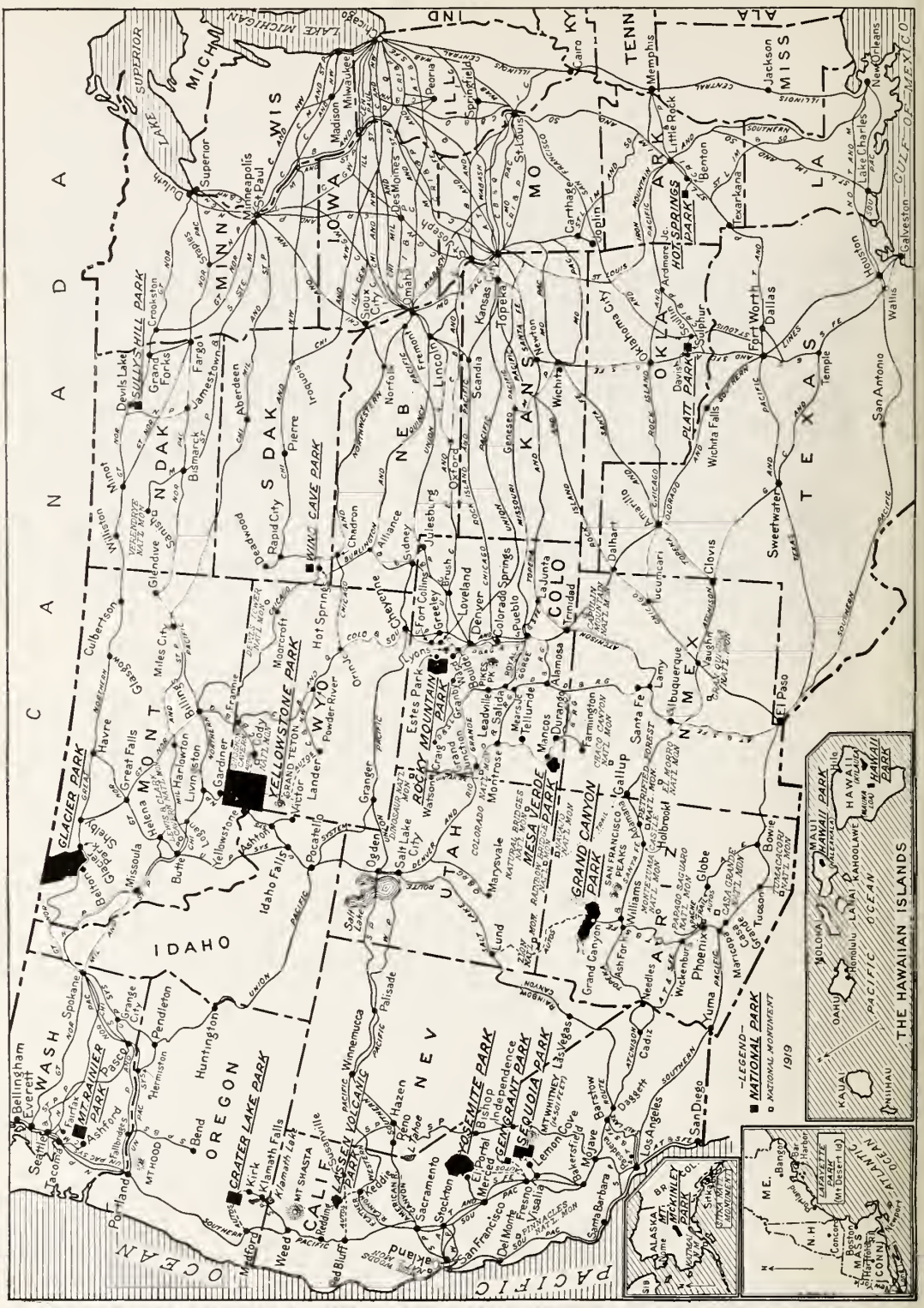
The trees probably at one time grew beside an inland sea; after falling they became water-logged, and during decomposition the cell structure of the wood was entirely replaced by silica from sandstone in the surrounding land.

SITKA NATIONAL MONUMENT, ALASKA

THIS monument reservation is situated about a mile from the steamboat landing at Sitka, Alaska. Upon this ground was located formerly the village of a warlike tribe—the Kik-Siti Indians—where the Russians under Baranoff in 1802 fought and won the "decisive battle of Alaska" against the Indians and effected the lodgment that offset the then active attempts of Great Britain to possess this part of the country. The Russian title thus acquired to the Alexander Archipelago was later transferred to the United States.

A celebrated "witch tree" of the natives and sixteen totem poles, several of which are examples of the best work of the savage genealogists of the Alaska clans, stand sentrylike along the beach.

HOW TO REACH THE NATIONAL PARKS



The map shows the location of all of our National Parks and National Monuments and their principal railroad connections. The traveler may work out his routes to suit himself. Round-trip excursion fares to the American Rocky Mountain region and Pacific Coast may be availed of in visiting the National Parks during their respective seasons, thus materially reducing the cost of the trip. Transcontinental through trains and branch lines make the parks easy of access from all parts of the United States. For schedules and excursion fares to and between the National Parks apply to your local railway ticket office or to any tourist agency.

For informatian about sojourning and traveling within the National Parks write to the Director of the National Park Service, Washington, D. C., for the information circular of the park or parks in which you are interested.

WASHINGTON : GOVERNMENT PRINTING OFFICE : 1921